OCTOBER 2001

FAA Aviation news

AVIATION SAFETY FROM COVER TO COVER

Cover Story:

Albuquerque International Balloon Fiesta 2001 – "Our 30th Journey®"

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The FAA's Flight Standards Service, General Aviation and Commercial Division, Publications Branch, AFS-805, Washington, DC 20591; telephone (202) 267-8212, FAX (202) 267-9463; publishes FAA AVIATION NEWS in the interest of flight safety. The magazine promotes aviation safety by calling the attention of airmen to current technical, regulatory, and procedural matters affecting the safe operation of aircraft. Although based on current FAA policy and rule interpretations, all printed material herein is advisory or informational in nature and should not be construed to have regulatory effect. The FAA does not officially endorse any goods, services, materials, or products of manufacturers that may be mentioned. **Certain details of accidents described herein may have been altered to protect the privacy of those involved.**

The Office of Management and Budget has approved the use of funds for the printing of FAA AVIATION NEWS.

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The Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9371, sells FAA AVIATION NEWS on subscription. Use the self-mailer form in the center of this magazine to subscribe.

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FRONT COVER: Fiesta 2000 record-breaking mass ascension featured this handsome jet-balloon.

BACK COVER: A bright "Night Glow" exchange between Uncle Sam and a Russian doll balloon. (Cover and back cover photos by A. Mario Toscano)

Albuquerque International Balloon Fiesta 2001 – "Our 30th Journey®"

story and photos by A. Mario Toscano

It's fall 2001, and Albuquerque, New Mexico, is once more ready to be transformed with balloons in beautiful colors and interesting shapes in its sky. From the 6th to the 14th of October all eyes are on the "balloon capital" of the world. Named by its organizers "Our 30th Journey," this year's Fiesta has limited the registration to 750 balloons for the nine-day festivities, which includes the 6th America's Challenge Gas Balloon Race.

The one-fourth reduction from last year's record number of participating balloons was purposely instituted by the Fiesta board of directors to "enhance the quality of the event." Kodak Albuquerque International Balloon Fiesta®(KAIBF) Board President Harry T. Season, Jr., explains that this decision places "more of a focus on the pilots will result in larger launch spaces and more uniform launch sites." Limiting the event to 750 balloon teams, according to the organizers, does not affect Albuquerque's position as the world's largest annual balloon event.

Last year's Balloon Fiesta registered a record 1,019 balloons, setting a new Guinness World Record for staging a record launch on opening day when 329 hot air balloons were launched in one hour. Fiesta 2000—despite the disrupting bad weather of rain and high winds, which canceled and postponed several of its scheduled events, and delayed the start of the 5th America's Challenge Gas Race—held participation and attendance records within the 352 acre

"Balloon Glow," just at sunset, is a breathtaking spectacle that enchants Fiesta attendees.

Balloon Fiesta Park. More than 1,000 hot air and gas balloons from 22 countries and from 40 U.S. states flew over Albuquerque. An economic and market analysis conducted on the effects of Fiesta on the local economy during the 1999 event found that it brought $76.8 million in direct spending into the area.

2000 - A YEAR OF MANY FIRSTS

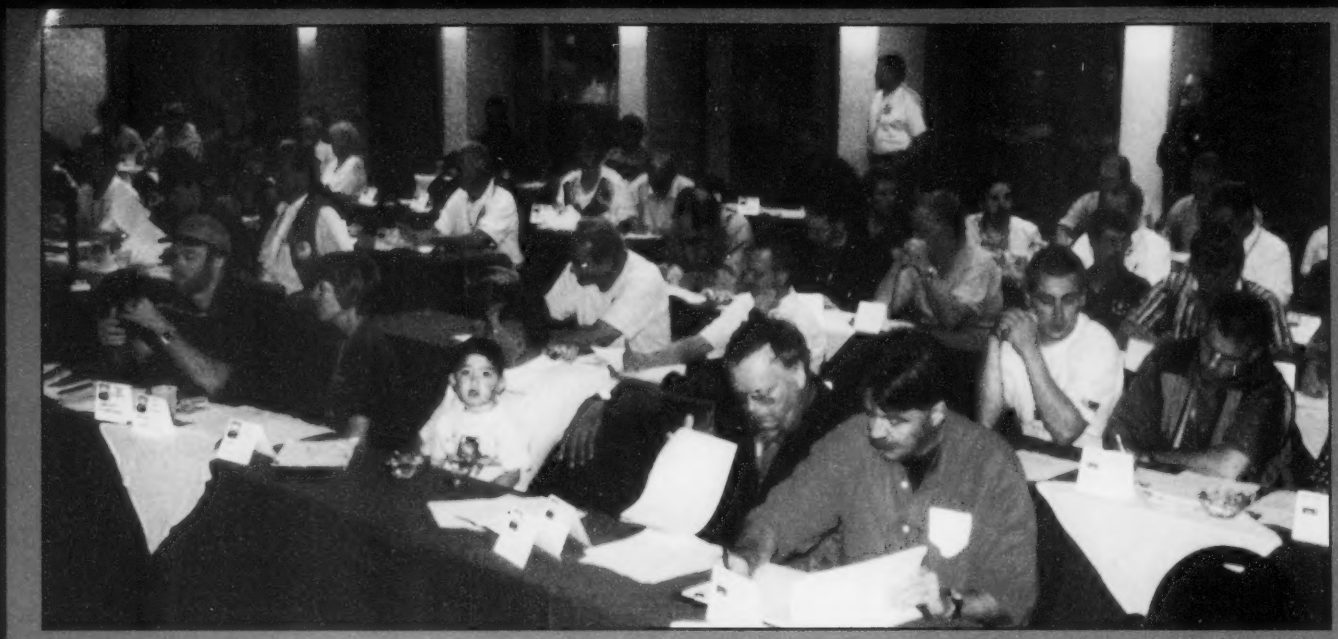
The 29th Fiesta in 2000 was a year of many firsts, including a marriage. Charlie Calico and Miles Kaplanides met at Fiesta 1999 and were married the first day of Fiesta 2000, October 7. They had intended to be married while the balloon was in flight, but bad weather kept them from the inaugural mass ascension Saturday morning. The couple flew first as newlyweds Monday the 9th, properly identified with a "Just Married" banner on their gondola.

The 5th America's Challenge Gas Balloon Race began late because of the unusually bad weather but scored two firsts: some gas balloons used hydrogen as a lifting gas, and all race participants positions were tracked "real-time" by a Gas Balloon Race Command Center receiving signals from global positioning system (GPS) "trackers" that were carried on board each balloon. The Education Committee of the Albuquerque Aerostat Ascension Association (Quad-A), as it customarily does before each gas race, held a special brief for participating teams. This included an in-depth seminar by German balloon pilot Astrid Gerhardt, winner of the Gold Medal at the 2001 World Air Games in Seville, Spain, on hydrogen gas ballooning. FAA's Albuquerque Flight Standards District Office, Air Traffic Control, and Automated Flight Service Station personnel presented pertinent information on charts, Air Traffic Control Centers, communications, weather, and flight services.

HYDROGEN GAS COMEBACK AND LIVE POSITION REPORTS

The 5th America's Challenge Gas Race—also the 2001 Gordon Bennett qualifier for U.S. participants—introduced hydrogen balloons in the gas race that up to then had used solely helium. Approximately half of the con-

The hydrogen comeback in ballooning documented. Top left: the crew prepares the new fuel intake system for installation on the envelope. The bottom, right photo shows a closeup of the inflation spout ready for the hook-up with the inflation hose. Above, right, one of the hydrogen envelopes is being readied for the competition lift-off.

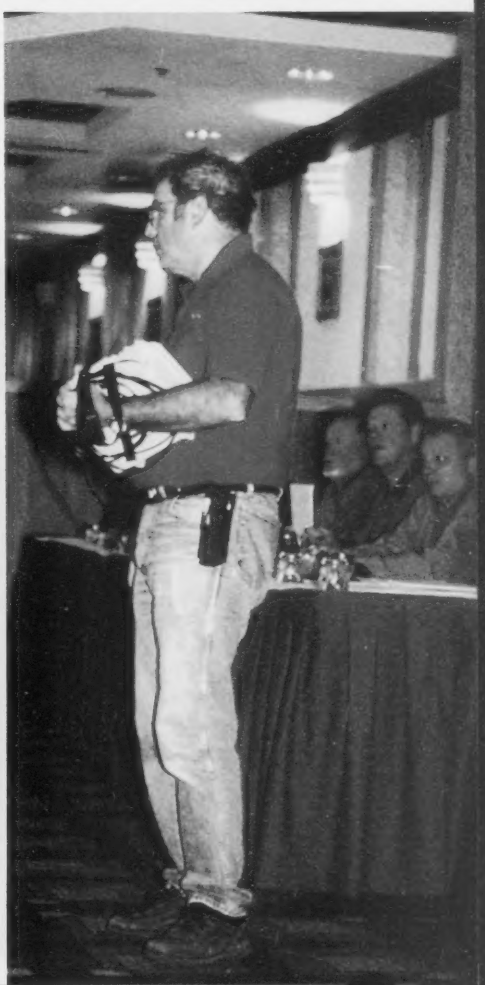


Views from the 5th America's Challenge Gas Balloon Race pilots and crew brief. FAA's Inspector-in-Charge for the event, J. D. Huss, center and below, makes his presentation.

testants flew using hydrogen.

Each participating balloon in the gas race was equipped with a GPS "tracker" system that provided accurate real-time position report for each participant as they flew the race. These devices send position updates when they are near 'digital repeater' sites. Since these repeater sites are scarce in the Midwest, some delayed reports occur. Because long distance gas competitions can take several days to complete, officials in the Gas Balloon Race Command Center used computers, and the media and public used the Internet to follow the balloons. This new system provides real-time information on positions and location on respective charts and maps. Viewers can zoom in and observe in real-time on large scale U.S. maps showing streets and roads over which the participants are flying. Fiesta website <www.balloonfiesta.com> recorded more than 100,000 hits, and Fiesta Park visitors to the Balloon Explorium were able to track the participants on a large screen mounted for the duration of the race.

David and Alan Levin flew 1,998 miles and won the race, just short of the U.S. distance record, landing



German balloon pilot Astrid Gerhardt, above, talks about hydrogen ballooning. Right, the new GPS tracking unit demonstration for race pilots and crew. Below, Event Director Pat Brake receives a competition position update from John Davis, center, and Dick Butterfield in the Gas Race Command Center.

The Albuquerque Automated Flight Service Station group in Fiesta's pilots and crew tent provides pilot weather briefs on demand. Pictured above, FAA's Georgianne Hanjoul, center in the red blouse, Michael Franco (left, behind Georgianne), and John van Arsdel, right with back to camera. Below, Operations Manager Thom Ochello, right, briefs a pilot.

near Portland, Maine. Richard Abruzzo and Carol Rymer Davis was second with 1,710.5 miles, and Troy Bradley and Earl Miller arrived third with 1,236.7 miles.

FAA's "TEMPORARY FLIGHT SERVICE STATION"

For the first time the FAA Albuquerque Automated Flight Service Station (AFSS) began providing online and live services directly to the pilots and crews participating in Fiesta 2000. Operations Manager Thom Ochello, Jr., had his crew set up a "Temporary Flight Service Station" in the pilots' tent, and each Fiesta day they answered questions, provided maps, and held pilot briefs upon request.

Albuquerque AFSS personnel also staffed the America Challenge Gas Balloon Race Command Center to provide weather and aeronautical information to race contestants and officials as contenders flew across the United States.

The newly instituted service was well received by the event-participants and Fiesta organizers. It consisted of thorough morning, mid-day, and afternoon pilot weather briefings with looping weather graphics that are continuously projected onto a large screen. The FAA Albuquerque AFSS plans to

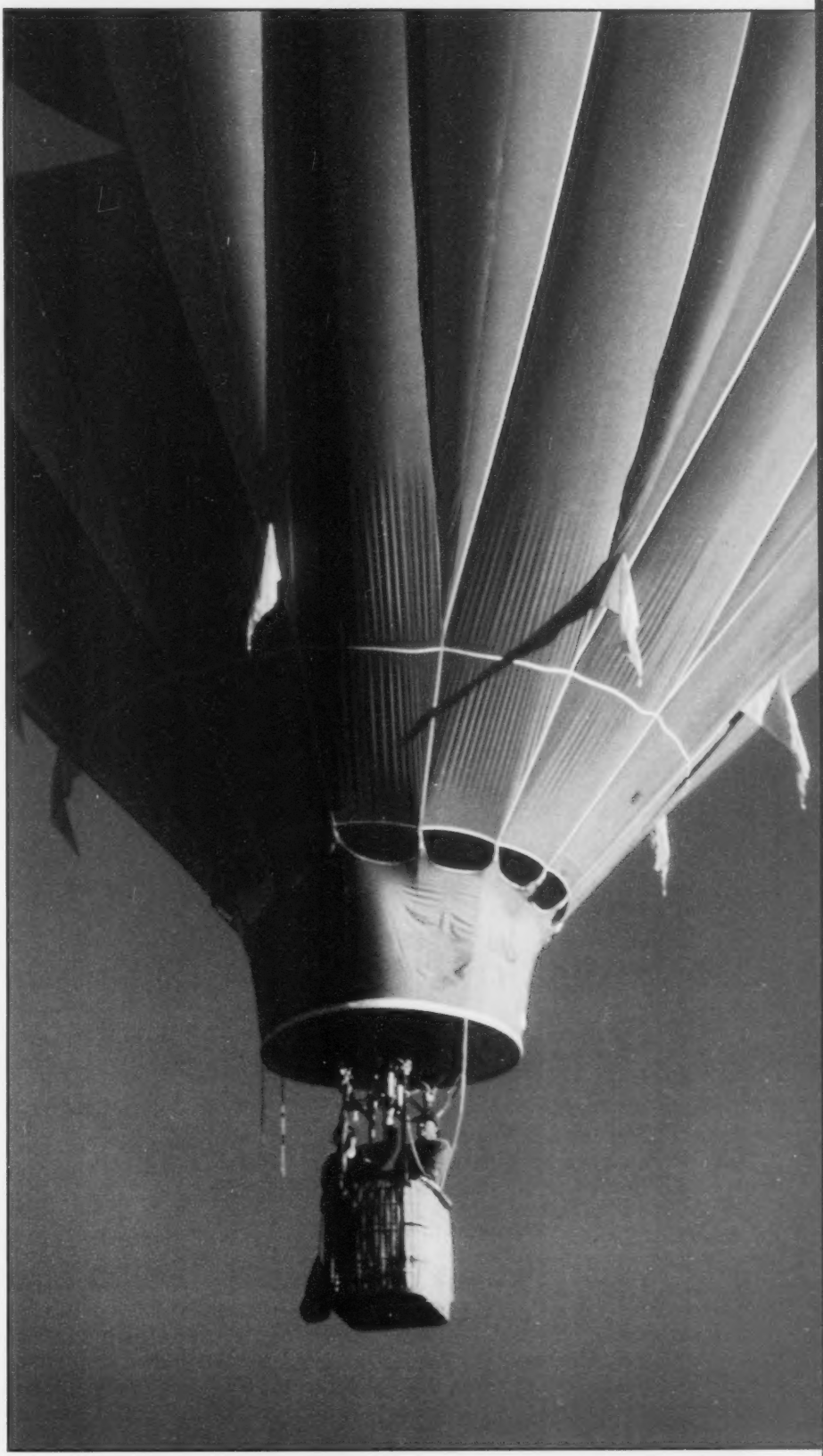
continue its direct support of Fiesta with services that include general information, automated services, frequencies, weather patterns, flight planning, and pilot briefings. Available maps include the New Mexico topography, weather reporting locations, airspace classification, area AFSS and Air Traffic Control frequencies, Airways-Jet routes, IR/VR routes, and restricted areas. Many of these products are also on the web at <www.abqafss.jccbi.gov> and for a weather brief over the phone you can call 1-800-992-7433(1-800-WX-BRIEF). If you are a participating pilot or crew in 2001 Fiesta, drop by the FAA booth in the pilots' tent for a briefing or just to say hello. You'll be glad you did!

ORGANIZING FIESTA

Held each year during the first week in October, Fiesta consists of nine flying days, five morning mass ascensions, four special shapes events, three evening balloon "glows," and two "prize-grab" days. In addition to pilots, crews, international balloon teams, and a full-time paid staff of fewer than 10 employees, Fiesta organizers rely on year-round efforts of more than 2,000 volunteers, managed by a 23-member all volunteer Board of Directors to plan and execute the event. During the event itself, the Balloonmeister , Assistant Balloonmeister, safety officials, launch directors, field judges, propane officers, balloon chase crews, ground crews, pilot pack stuffers, and other support personnel—all volunteers—work non-stop for a successful event.

FLYING THE ALBUQUERQUE "BOX"

Albuquerque has almost perfect conditions for ballooning. The crisp, fall weather in Albuquerque, clear days and cool temperatures, produces a weather pattern known as the "Albuquerque box." This is a combination of upper and lower level winds created by the Sandia Mountains and enhanced by the Rio Grande Valley. The



"box" enables balloonists to backtrack their flight pattern and land close to their launch sites. Cool air from the north near the surface will take pilots one direction while winds at a higher altitude blow in the opposite direction. All that a balloon pilot needs to do is to change altitude to fly back to his/her departure point. This is how Fiesta balloons remain close to the field. Occasionally, some favorable wind patterns allow pilots to dip their gondola in the Rio Grande River for a "Splash and Dash."

Albuquerque's weather is also conducive to gas ballooning. The gas balloon has an enclosed cell that contains a lifting gas, usually helium. While hot-air balloons float only a few hundred to a thousand feet above the ground, gas balloons fly several thousand feet above the ground and attempt to reach faster winds at higher altitude. Because altitude is not controlled by heating the air, gas balloon pilots use navigation, altitude, and strategy to use the weather patterns that sometimes take them thousands of miles away, and for some entrepreneurial souls as far as around the globe.

BEGINNING EARLY, JUNIOR BALLOONIST ACADEMIES

There are many opportunities available for America's youth to gain practical knowledge and understanding of ballooning. KAIBF has its own student academy and selects students, ages 12 to 15, to actively participate in its event. The program is designed to provide participants with skills necessary to conduct a large balloon event like Fiesta, and an in-depth look at the sport of ballooning.

The 2000 KAIBF Academy program, directed by Clare Wade-Callihan, selected six students

The Donner family of great pilots pictured last October during Fiesta! From left, Nick Donner(17), an alumni from Tina Reeves' Junior Balloonist Academy, soloed at 14, got his license at 16, and just represented the U.S. at the World Air Games in Seville, Spain. Next, is Nick's proud mother Terri Donner, a 727 captain for UPS, on hand to celebrate junior son Charles "Chase" Donner's 14th birthday (12 October 2000) by receiving his student pilot certificate from FAA's J.D. Huss, extreme right. "Chase" soloed five days later.

from New Mexico, Texas and Arizona based on their nomination and on their essays on why they wanted to participate in the Balloon Fiesta Academy. Current information about the nomination process, and a copy of the official nomination form can be obtained at the official Fiesta web site, <http://www.balloonfiesta.com/edu/academy.htm>.

Just as the three previous years' classes, 2001 Fiesta Academy students, known as balloon cadets, are fully uniformed, carry log-books, and work side by side with members of the Balloon Fiesta Board of Directors. They learn about safety briefings, registration, and assist in the launching of hot air balloons, as well as fueling and launching of gas balloons.

Tina Reeves, Vice President of the Balloon Federation of America (BFA), runs a Junior Balloonist Academy in Albuquerque. She manages the BFA's Junior Balloonist Academy program with a ballooning essay contest from her web site at <http://www.stlmo.com/skyangel>, to select cadets. The 2000 winners, aged 14 to 17, participated in the Fiesta as ground crew members to learn the "ropes" from direct exposure to the sport. Their winning essays are published in their entirety on Reeves' web site.

"Promoting the value of an education, staying off drugs and alcohol, and setting and achieving goals not only in aviation but in life, is what the BFA Junior Balloonist Program is all about," says Reeves. She announced that the BFA has started a scholarship program and the first award will come in 2001.

As a result of youth programs, says Tina Reeves, "Junior balloonists are now being included in safety seminars as well as becoming active in their local balloon clubs. The International Ballooning Commission (IBC) has developed guidelines for youth camps that any organizer can adapt to set up."

Reeves boasts several successes from previous classes of junior balloonists who went on to receive their certificates, and become successful in ballooning. Nicholas Donner, one of Tina's juniors, soloed at the age of 14, got his private pilot certificate at 16, and three days later placed first in the U.S. National Balloon Championship. Donner is scheduled to go to France to compete in the World Championship and has just represented the U.S. in Seville, Spain, in the World Air Games 2001 last July.

Reeves, who also publishes "The Jr. Flyer," a newsletter rich in ballooning information for young aeronauts worldwide, is now busy preparing the first U.S. International Youth Balloon Camp for 2002. She welcomes inquiries and can be reached via e-mail at <skyangel@stlmo.com>.

OPERATIONAL AIRSPACE WAIVER — FIESTA'S BLUE PRINT FOR BUSINESS

The issuance of a Certificate of Waiver or Authorization for an Aviation Event is governed by Federal Aviation

Regulations (FAR) Part 91. The waiver is the FAA document authorizing certain operations of aircraft in deviation from regulations, while assuring an equivalent level of safety. FAR § 91.905 lists the Sections that can be waived, and it is the responsibility of the FAA's Flight Standards District Office (FSDO) to process the waiver request.

A waiver is primarily granted based on a recommendation by the FAA-designated inspector in charge (IIC) and upon an in-depth knowledge of the proposed operation and show site. In this case, J.D. Huss, a senior aviation safety inspector with the Albuquerque FSDO, was the designated IIC for last year's Fiesta. He is also the IIC for the 30th Fiesta.

Foremost for the FAA is the safety of spectators and participants. Organizers assume responsibility for an operationally safe meet with target areas under event officials' control. The FAA is the final authority to review the organizer's operations manual. When satisfied—the manual addresses pertinent Federal Aviation Regulations and FAA directives—the jurisdictional FSDO grants and issues the requested Certificate of Waiver or Authorization for the event.

When applying for a waiver, event organizers are also asked to submit a set of competition rules conforming to industry standards such as those developed by the Balloon Federation of America (BFA). To be eligible for a waiver of FAR § 91.119(b) and (c) the applicant must prepare and maintain an Organized Manned Free Balloon Competition Manual that has been found acceptable by the jurisdictional FSDO. This Manual is a safety document with operations, personnel, letters of agreement, and the names of balloon flight crewmembers specified. The Manual is the basic tool used to assure that all operators work under the same standards. FAR § 91.119 (b) can be waived to allow flight over a congested area at an altitude of no less than 500 feet above the highest obstacle within a 500 feet radius from the balloon. The section requires a specified maximum distance from launch and target areas. If a target area is small and does not allow for a normal descent of 200 to 300 feet per minute, the waiver will not be granted. However, the section may be waived to allow flight over, but not less than 75 feet from, any open air assembly of people (spectators' area) under direct control of event organizers. FAR § 91.119 (c) may also be waived to allow flight over open water or sparsely populated areas, no closer than 200 feet horizontally to any person, vessel, vehicle, or structure.

The maximum wind speed for launch and for the target area is set by an agreement between the event organizer and the FAA. Fiesta maximum wind speed is set at 10 knots.

Before issuing a waiver the IIC conducts a feasibility study, participates in all preseason evaluation meetings, reviews the Application for Waiver, and, in recommending that a waiver for the event be issued, the IIC becomes the FAA official who will be responsible to oversee the entire event.

THE FSDO IN THE PILOT'S TENT

Way before the first balloon goes up, the FAA has the responsibility to review the certificates and currency of all participating pilots, as well as each entrant's balloon's airworthiness.

Just like airplane pilots, balloon pilots must also meet federal requirements for certification. To receive an FAA pilot certificate, pilots must pass knowledge and practical tests covering regulations, meteorology, and general ballooning rules. Minimum age for licensing is 16. Balloon pilots also must meet minimum flight time hours. Private pilots must have 10 hours of flight time, including one hour solo. Commercial balloon pilots need 35 hours of flight time and must pass an additional exam and flight check. To be pilot in command, balloon pilots must complete a flight review every 24 calendar months.

Balloons must be inspected for airworthiness every year or every 100 hours of flight time if flown for hire. Fabric, maintenance, and conditions in which a balloon is flown determine its longevity. Normally, a balloon that has flown 500 hours is considered old.

The IIC's day during Fiesta is generally 16 hours long. In addition to managing the FAA booth where required certificates are reviewed, Huss is called to resolve last minute issues and to ensure that spectators remain clear from target areas during balloon competitions. He also finds time to deliver periodic safety classes for the young at the Fiesta Explorium and Museum and to speak on safety issues. To help Huss manage the voluminous workload during Fiesta, the FAA selects and sends several inspectors from neighboring FSDO's to augment the FAA's temporary "office" at Fiesta Park. J.D. Huss insists in giving credit and commending all Fiesta volunteers for their unselfish devotion to safety. "Pat Brake, Fiesta Event Director, and her team do a gigantic job that would, otherwise, require a mammoth FAA resource presence to achieve," exclaims Huss.

FIESTA TIME IS JUST BREATHTAKING!

All is ready on the first Saturday of October. Fiesta balloons rise early, 5:30 a.m., is when the Dawn Patrol lifts off. The colors (American flag) go with the first launch at 7:00 a.m. Pilots rush from breakfast to their daily morning briefing on the weather and conditions for flight and to witness the launching of the traditional small weather balloon while their crews prepares their balloons for mass ascension. Lift off generally occurs in waves and is smooth with impeccable rhythm.

Morning flights, balloon races, and evening "glows" are spaced with entertainment that can include a high school band recital, Native American dancers, or a fireworks show. But, it's balloons non-stop until final mass ascension.

"Balloon Glow" and "Balloon Night Glow" are two of the evening events, which occur just before dusk. Some 400 balloons are securely tethered

and inflated. At the direction of the "Balloonmeister," burners are ignited filling the evening sky with breath-taking colors.

Special Shapes Rodeo is a collection of balloons made into intriguing shapes. The sky is filled with creative balloons such as a piggy bank, a three-masted sailing ship, a cow, a tennis shoe, a mounted-policeman on a horse, a replica of Noah's ark, and much, much more.

Fiesta organizers do an outstanding job in managing attendance and its logistics. Parking and transportation is ample, including access for people with disabilities. Spectators will have a packed day with plenty of food, balloons, and vendor pavilions. They can also visit the children activity and memorabilia center at the Balloon Explorium and Museum. In recent years, more than 2,000 recreational vehicles registered to stay at the Balloon Fiesta Park in 78 acres reserved for them with more than 2,200 sites for campers and RV's. Most who come that way, usually stay for the duration of the event.

From inaugural mass ascension to the final lift off, between gas and hot air balloon races, evening glow spectacles and special shapes launches, the Fiesta is regarded as the most photographed ballooning event in the world. In addition to the thousands of spectators who visit Fiesta Park each year, millions see the event on television segments worldwide.

CONCLUSION

Safety in ballooning and in Fiesta Park during operations cannot be over-emphasized. It is FAA's primary mission as it is Fiesta event director Pat Brake. Brake instills in all her volunteers—more than 2,000 of them each year—that safety is their foremost concern. The Albuquerque FSDO is grateful for the "outstanding job" that Brake's team does in keeping Fiesta and Albuquerque's skies safe.

The FAA has succeeded in maintaining the highest safety record through the years at the Fiesta because of this genuine collaboration from the event organizers, their leadership, dedication, and responsibility. All participants are to be commended for it!

Thanks to Karen Adams, FSDO manager, and J. D. Huss, Fiesta IIC, and all the folks at the Albuquerque FSDO, ATC, and AFSS. Tom Garrity, Director of Media Relations KAIBF and his staff. The folks in the pilots/crew tent and to all the balloons for their majestic beauty and inspiration. The Albuquerque's Balloon Fiesta web site is <www.balloonfiesta.com> and has complete and current information about Fiesta 2001.

KODAK ALBUQUERQUE INTERNATIONAL BALLOON FIESTA
October 7-15, 2000

FINAL NUMBERS

Registered balloons: 1,019
Regular shape balloons: 902
Special shape balloons: 90
Registered gas balloons: 27
Estimated spectators: 801,444
Media organizations: 286
Media representatives: 1,261
States represented: 40
Represented countries: 22

BALLOON RACE WINNERS

David Levin from Boulder, Colorado, won the 5th America's Challenge Gas Balloon Race.

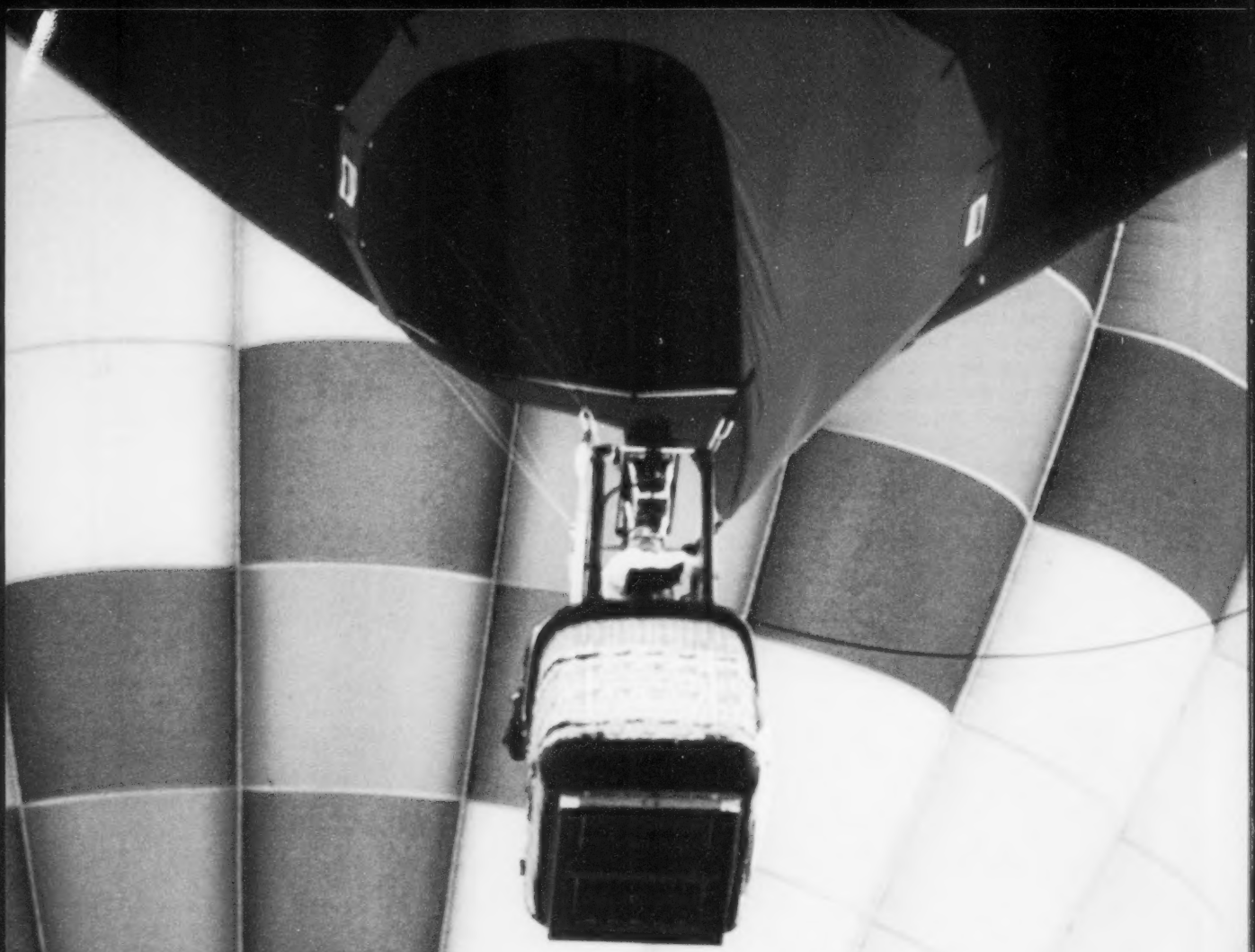
Mike G. Bauwens from Park City, Utah, won first prize in the hot air pilots' competition. William A. Walker from Albuquerque was second, and Stephen G. Whiteley, also from Albuquerque, was third.

FIESTA HISTORY

Fiesta began in 1972 with only 13 balloons and fewer than 10,000 spectators. It was a distance race held to promote a local radio station at the Albuquerque's Coronado Mall. Next year, 13 countries took part in the first "World Hot Air Balloon Championship," this time held at the New Mexico State Fairgrounds.

By 1978 Albuquerque Fiesta was the world's largest balloon event with 273 entries that year. In 1981, gas balloons became part of the Fiesta, and in 1993 AIBF hosted the 37th Annual Coupe de Gordon Bennett, the world's oldest and most prestigious gas balloon race. In 1994, Fiesta hosted the 8th World Gas Balloon Championship, and in 1995, launched the 1st America's Challenge Gas Balloon Race.

Today, the Fiesta is considered the world's most photographed event, drawing national and international media coverage and is often featured on television specials worldwide. Fiesta, truly one of America's great events, is organized and executed by a full-time paid staff of less than 10 employees, an all volunteer board of 23, and thousands of volunteers who support all facets of the meet.



FAA'S NEW BALLOONING VIDEO AND HANDBOOK

The FAA has released two new ballooning tools: a video and a publication titled the "Balloon Flying Handbook."

"Pilot Decision-Making: Aircraft and Equipment Preflight" is a safety video geared to hot air ballooning. It was just release by its producers – the FAA video group in Atlantic City, NJ, in cooperation with members of the Great Eastern Balloon Association and the John Wise Ballooning Society. It is an instructional, detailed script targeted to all levels of expertise in ballooning. The 20-plus minute video takes its viewer from a pre-flight of the balloon as well as the chase vehicle through the complete process of the flight and its landing. Copies can be requested on loan from your local Flight Standards District Office Safety Program Manager. (See the article on making the video on page 16)

The FAA has updated the Balloon Flying Handbook (FAA-H-8083-11) and it is now available. You can order it by stock number 050-007-01313-2 from the U.S. Government Printing Office, toll-free 1-866-512-1800, or through the web at <bookstore.gpo.gov>. The cost is $16.00 ($20.00 foreign).

The new handbook contains nine chapters covering from flight preparations to aeronautical decision making. It also has four appendices containing checklists, airworthiness standards, airman application, and a complete glossary of ballooning terminology.

BALLOON COMPETITIONS AND EVENTS AROUND THE GLOBE

Hot air and gas ballooning are extremely popular around the globe. Especially in Europe, balloon races and competitions are scheduled and held year round. International meetings, such as the gas balloon Gordon Bennett Cup, are most prestigious and draw the best balloonists in the world.

This year's 45th Gordon Bennett Cup (Coupe Aeronautique Gordon Bennett) was held in Warstein, Germany, from August 31 to September 8. At press time (mid-August), 10 countries with a total of 16 entries were confirmed. The German Balloon Federation manages the event and allows up to 25 teams in the competition.

The United States, allowed to nominate up to three teams to represent it, submitted the teams of David Levin/Mark Sullivan, Richard Abruzzo/Carol Rymer-Davis, and Troy Bradley/D. Earl Miller. The America's Challenge Gas Balloon Race held in Albuquerque, NM, last October, was used as the U.S. qualifier for the Gordon Bennett Cup.

The German team of Wilhelm Eimers/Bernd Laudsmann won the 44th Gordon Bennett cup held last year in September in St. Hubert, Belgium. The American team of Richard Abruzzo/Carol Rymer Davis was second. Eimers landed in Malmo, Sweden after flying 796 kilometers (494 miles), and Abruzzo landed in Capoli, Italy registering 745 kilometers (462 miles). Traditionally, each Gordon Bennett Race, an event sanctioned by the Federation Aeronautique Internationale (FAI), is held in the country of the current Cup holder.

FAI's Ballooning Commission (CIA – Commission Internationale d'Aerostation) also sanctioned the 2nd World Air Games held in Seville, Spain, from June 23 to July 1, 2001. Competitions include both hot air and gas ballooning. Masahiko Fujita from Japan is the new Hot Air Balloon World Air Games champion. Klaus Wesgerber and Astrid Gerhardt(pictured on page 5) from Germany are the new Gas Balloon World Air Games champions.

The FAI has also sanctioned, among other international events, the 2001 Saga International Balloon Fiesta scheduled to take place in Saga, Japan, from October 30 to November 5, and the 2001 Montegi Hot Air Balloon International Championship, to be held in Montegi, Japan, from November 20 to 26.

Japan's balloonist Masahiko Fujita, who was crowned the World Air Games hot air balloon champion in Seville, Spain last July, was also the 2000 Montegi, Japan, grand winner sweeping that event three titles: World Grand Prix, Japan Grand Prix, and the Montegi International Balloon Championship.

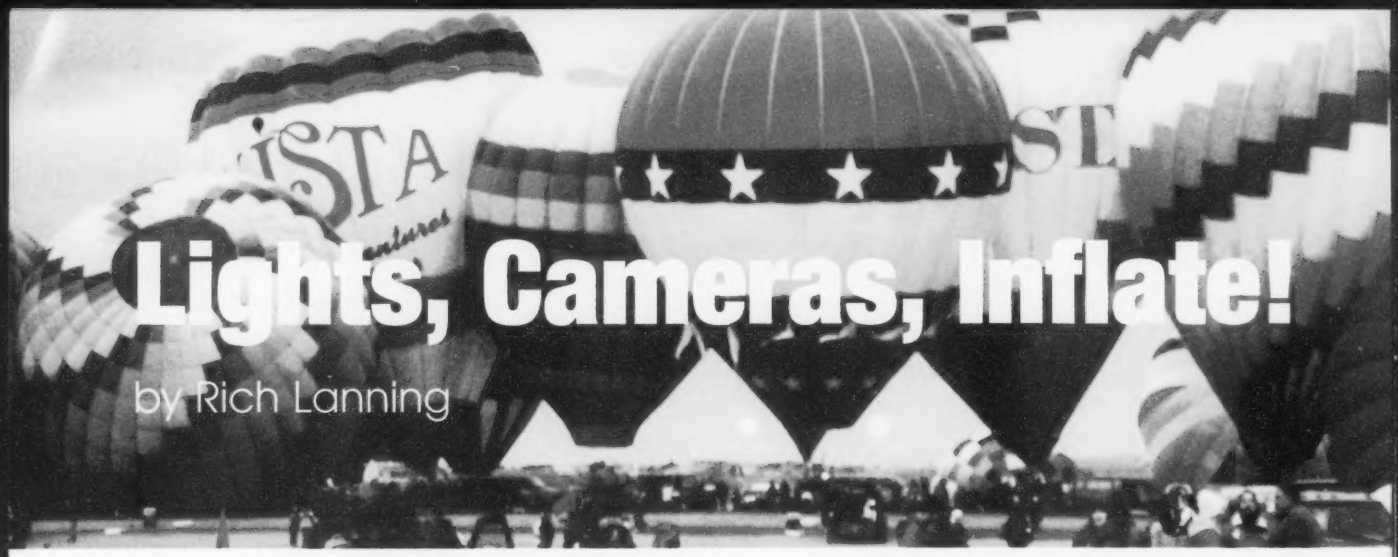
In France, the 2001 Biennale Mondiale de l'Aerostation was held in Lorraine from July 27 to August 5. Hundreds of balloon pilots from five continents gathered at Chambley's, the former U.S. air base, to participate in the event featuring hot air and gas balloons. The event hosted two gas races: the French Gas Balloon Championship, and the New Century Race. This was the 7th edition of the Biennale that is held every two years in France.

Among the significant international balloon competitions and events held last year in Europe were also the Hot Air Balloon European Championship from August 3 - 13 in Luxembourg, and the XXII Spanish Hot Air Balloon Championship in July. The Spanish competition held in Seville, Spain, was used as the test event for the 2001 World Air Games.

In France, the CIA (FAI's Commission Internationale d'Aerostation) announced the induction of two balloonists in their Balloon and Airship Hall of Fame.

American Karl Stefan from Omaha, Nebraska, and former U.S. delegate to the FAI International Ballooning Commission was inducted last year. Officer, pilot, engineer and balloon pilot, and LTA engineer, Stefan made his first gas balloon flight in 1956 and his first hot air balloon flight in 1961. A former officer in the U.S. Navy, he set a World Altitude record in class AX8 with 31,189 feet in 1971. Karl Stefan is credited with the creation of CIA's newsletter thus circulating important information to aeronauts around the globe.

Concurrently, the Robert brothers, Anne-Jean and Marie-Noel, from France, were inducted posthumously for their work in developing the first usable hydrogen balloons beginning in 1783. The Robert brothers helped Professor Jacques Alexander Cesar Charles build the very first hydrogen balloon. On December 1, 1783, Marie-Noel accompanied Professor Charles on the first human flight in a gas balloon. On July 15, 1784, the Robert brothers with Collin-Hullin and the Duque of Chartres made a flight in an elongated balloon, and tried to control the flight direction with oars. A second flight in an elongated hydrogen balloon with Collin-Hullin was held in September 19, 1784. This time the Robert brothers tried to control the flight direction with parasols in a flight that lasted six hours and 40 minutes from Paris to Beuvry, France.



Lights, Cameras, Inflate!

by Rich Lanning

Hot air balloon pilots receive a significant amount of training and have access to a lot of different resources. However, ballooning is a team activity. It is the crewmembers who have the least exposure to training and educational materials related to ballooning. It was time that a video be developed for the hot air balloon community.

Have you ever looked through the extensive listing of safety and training videos offered by the FAA? You might be surprised to find not a single video focused on balloon operations. This is not to say that none of the videos available are of any use to balloon pilots. There are a number of videos on the FAR, Flight Service Stations, aeromedical factors, and weather; but none are purely for the balloon hobbyist. In contrast there are explicit videos for helicopter, seaplane, and even ultralight operations, but nothing on the oldest form of aviation. To this end a number of Aviation Safety Counselors (ASC) for the Philadelphia FSDO, under the guidance of Safety Program Manager Eileen Iandola, embarked on this task. This was the beginning of what would turn out to be more than a year-long project.

The first decision confronting the group was whether there would be any interest or value in producing the video or whether a video was even the right medium to use. So while pilots would benefit from the video there was no question that crewmembers would potentially profit from a video even more. The video would address the decision making process during the preflight portion of a hot air balloon flight, as a complete and thorough preflight is essential to a safe and enjoyable balloon flight.

In order to produce the video, professional assistance was needed, and who better to assist than the FAA's Imaging Technology Branch, ACT-73? Located just outside Atlantic City, NJ, at the William J. Hughes Technical Center, ACT-73 has an impressive array of capabilities that include virtually everything in multimedia. The branch has also received a number of video industry awards including four Telly Awards, a Communicator Award, two Axiem Awards; and more recently received the Technical Center's Director Award for 2000, a very prestigious recognition given to only one individual or group for outstanding achievement by Dr. Anne Harlan, Technical Center Director.

The branch provided a concise set of guidelines on how to put a video together. The main ingredient of any video is the script. The script became the key to moving the project along. Ultimately, a 10-page script with over 60 scenes, with multiple visuals associated with each scene, was produced. The Imaging Technology Branch considered it worthy of production and was willing to produce it.

With limited funding available, filming had to be done at the William J. Hughes Technical Center only during normal working hours. All of the pilots involved donated their time, equipment, and resources for the filming. As hot air balloons are very susceptible to weather, especially wind, the weather had to be perfect for filming. This resulted in many weeks of delays because of the numerous windy and rainy days suffered through this past summer.

The first day of filming had the pilots and their crews assembled at 5 a.m. at the front gate to the Technical Center. After the security formalities were taken care of they were escorted to a very, very remote part of the Technical Center. Throughout the day they worked through the script in temperatures approaching 90 degrees. There was no shade and no facilities of any kind. The filming was not without its casualties. Hot air balloons are normally on the ground and deflated within two hours of sunrise because of the winds and thermals that begin to form after sunrise. Much of the filming required the balloons to be either fully or partially inflated. The expected winds tossed and turned the balloons resulting in one having its envelope ripped on some unknown obstruction. A second day of filming occurred several weeks later.

What were needed now were some aerial shots to augment the video. They could not fly out of the Tech Center since it is collocated with the Atlantic City Airport and too close to the ocean. Here is where the camaraderie of balloonists was demonstrated. After a few phone calls, they were able to assemble several additional balloonists and a suitable launch site. An appropriate launch site was

critical since the State of New Jersey mandates that all balloons take off from airports. Fortunately, they were able to locate a private airstrip so that their filming and the large number of slow-moving balloons involved would not pose a safety hazard to fixed-wing traffic.

The film crew had coverage of the balloons from both the air and on the ground. This was the first time in a hot air balloon for most of the film crew. The problem with hot air balloons is that once launched you can't turn them around and start over nor can you easily position them in the air for optimum filming. It was discovered that a few additional aerial scenes were required. Fortunately, a fellow balloonist who also does professional filming was able to augment the more than five and a half hours of filming already shot with footage from an area balloon rally. The average video shot is typically five to seven seconds after which a viewer begins to get bored.

Once the filming was done it was then time for adding the narration and graphics to the footage. A professional speaker was used to ensure the quality of the final product. Approximately 20 minutes of narration were added to the video. The finished video is 22 minutes in length. The premier showing of the video was held at the annual Great Eastern Balloon Association (GEBA) Safety Seminar on March 3, 2001.

This video should prove to be a great addition to the already fine collection of aviation-related videos offered by the FAA. It will clearly fill a critical void in safety videos for hot air balloon operations. This appears to be the first time a group of ASC's have ever developed a safety video for the FAA. It is a testament to the talent and dedication that exists within the ranks of the ASC community. It is also an indication of the superb cooperation and teamwork that exists between a FSDO and its aviation safety counselors and the great things that they can achieve together.

Rich Lanning is an Aviation Safety Counselor for the Philadelphia FSDO..

RUNWAY SAFETY CORNER

The runway incursion statistics are out for the first half of 2001. So far the figures show that there were 243 runway incursions, two fewer than this time in 2000. Of these 48% were Category D (little or no risk of collision), 38% were Category C, 8% were Category B, and 6% were Category A (collision barely avoided because extreme action is taken). The good news is that, when comparing the severity distribution of the combined totals of the last three year, the 2001 percentages have decreased in Categories A, B, and C.

When the FAA investigates a runway incursion, the occurrence is attributed to one or more of the following error types:

- Operational Error (OE) is an action of an Air Traffic Controller (ATC) that results in:
- Less than the required minimum separation between two or more aircraft, or between an aircraft and obstacles (obstacles include vehicles, equipment, personnel on runway).
- An aircraft landing or departing on a runway closed to aircraft.

Pilot Deviation (PD) is an action of a pilot that violates any Federal Aviation Regulation. For example, a pilot falls to obey air traffic control instructions to not cross an active runway when following the authorized route to an airport gate.

Vehicle/Pedestrian Deviation (VPD) includes pedestrians, vehicles, or other objects interfering with aircraft operations by entering or moving on the runway movement area without authorization from air traffic control.

According to the statistics provided, pilot deviation is still the most frequent type of runway incursion, accounting for 57% of the 2001 incursions. Operational Error accounted for 25% and vehicle/pedestrian deviation for the remaining 18%. For those interested, the following chart shows how these error types are divided up among the four risk categories so far this year.

RUNWAY INCURSIONS
CALENDAR YEAR (CY) TO DATE
TYPES BY CATEGORY
AS OF 08/01

	OE	PD	V/PD
CY 2001 YTD TOTAL 243	**60**	**139**	**44**
CY 2000 YTD TOTAL 245	**44**	**151**	**50**

Ballooning:

A Simple History

by A. Mario Toscano

The end of 1782 is unforgettable when celebrating aviation. Joseph Montgolfier, a French paper producer, and his younger brother Etienne (Jacques)—after years of experimentation with their dream of flying—lifted a thirty cubic foot silk envelope nearly 100 feet using hot air alone in the small French town of Annonay, near Lyon. It was the beginning of the simple, yet colorful ballooning history!

In the 220 years that followed the Montgolfier small success in Annonay, balloons have created great myths, left behind great stories, and built a distinguished tradition. However, the best is yet to come.

In their next experiment the Montgolfier brothers lifted a 106 cubic-foot-envelope, and then, their first balloon—an 28,252 cubic-foot-envelope—soared 1,300 feet high in April 1783. On June 4th, that same year, a balloon made its first official public appearance. It was a 31,784 cubic-foot-envelope made of cotton sewn on paper coated with alum, tied to two poles to the ground, and holding a gondola with burning straw and wool in it. That balloon flew 6,600 feet high for ten minutes, landed, and burned in a nearby field. However, the Montgolfier brothers had enough witnesses to their feat to register their discovery with the French Science Academy.

The most important race for the conquest of the skies in the history of flight was on. While Etienne was in Paris demonstrating his invention, physicist Jacques Charles and the Robert brothers, using the earlier 1766 discovery made by British chemist Henry Cavendish, built and successfully tested a hydrogen balloon made of silk and rubber. Next in the race for the glory, Parisian physicist Francis Pilatre de Rozier volunteered to become the first human to fly in a Montgolfier balloon, but the event did not occur until November 21, 1783, when King Louis XVI allowed an untethered human flight. The King of France, who had witnessed a previous eight-minute test flight with a hen, a duck, and a sheep, refused to witness the historic human event.

After several solo, tethered tests, Francis Pilatre de Rozier piloted the first flight with a passenger, Army Major Marquis d'Arlandes, in a basket with three compartments—two for the passengers and one for the burner. The flight above Paris lasted 28 minutes at a cruising altitude of 3,300 feet, writing the Montgolfier brothers and de Rozier into the history books. What followed was a competition for goals in endurance, distance, and envelope sizes.

In 1784 in England, after several animals were used in free flight tests, Mrs. Tible became the first woman to fly a balloon, and Jean Pierre Blanchard built a flying ship with oars suspended below a hydrogen balloon and became the first to cross the Channel from England to France. Feeling outdone, de Rozier built a new balloon—a combination of hot air envelope and a small hydrogen balloon—to fly from France to England. In January 1785 de Rozier left France, and after a few minutes in flight the burner's flame ignited the small hydrogen balloon, cre-

ating an inferno. Ironically, the first to fly in a balloon, de Rozier became the first balloon casualty.

In June of 1784, Marylander Peter Carnes flew the first tethered balloon in America, but it was de Rozier's competitor Jean Pierre Blanchard, who would be the first balloon pilot to fly in America. Blanchard, who built his first balloon a few weeks after Montgolfier, had already traveled all over Europe giving demonstration flights in Germany, Poland, Austria, and the Netherlands. Now, it was America's turn.

On January 9, 1793, Blanchard was ready for the first aerial voyage of the New World. In front of what is now Philadelphia's Independence Square, before a large crowd, brass band, and the best of all our colonial regalia, America was ready to celebrate Blanchard's 45th ascension.

Suddenly, a carriage brought President George Washington inside the walls of the Walnut Street Prison, where, in its yard, the French Ambassador with other high level dignitaries gathered to witness the event. As Blanchard climbed into the wicker basket, President Washington handed him a "passport" and wished him bon voyage.

Blanchard threw out some ballast, let the tethers go, and gently lifted in a slow ascent just to savor the crowd impressions as he reached for the sky. Once outside the walls of the prison, Blanchard wrote in his journal, there were people everywhere—in the streets, squares, and the fields, roofs of houses and steeples, and all along his flight. The balloon rose 1,200 feet, caught a mild wind from the northwest, and headed toward the Delaware River rising to 5,800 feet.

In the company of a black dog given him at departure by a well-wisher, Blanchard traveled 15 miles in 46 minutes before beginning descent. He let out some of the envelope's hydrogen and masterfully guided the balloon to a safe landing in a field near Woodbury, NJ.

After a colorful and eventful return journey, Blanchard was back in Philadelphia that evening to a cheering crowd and received, among others, formal congratulations from President Washington for his extraordinary flight.

The story written by Blanchard in his journal is the story of a Frenchman in the English-speaking, American countryside, who had just came down from the sky in something never seen before. He has a "passport" given him by President George Washington and is attempting to return to the Country's capital Philadelphia carrying a balloon envelope packed in a wicker gondola. This account is worth the trip to the library or bookstore. Blanchard made several unsuccessful attempts to raise money for another manned flight and to defray the costs of his air experiments before returning to France in 1797. His second wife, Marie-Madeleine-Sophie Armant, became—like her husband—the best-known woman aeronaut in Europe and the first woman to die in a balloon accident.

Just like de Rozier's disaster, Marie-Madeleine's aerial accident gave impetus to the idea that ballooning was dangerous, thus creating a sense and need for safety. After an extremely fast-paced beginning, the evolution of ballooning slowed down considerably when compared with other areas in aviation. Until the early 1960's with the introduction of propane burners, balloons changed little, despite long and colorful stories handed down over generations of balloon pioneers.

Blanchard's Passport

The "passport" given to Jean Pierre Blanchard by President George Washington, dated January 9, 1793, read:

"To All Whom These Presents Shall Come:

The bearer hereof, Mr. Blanchard a citizen of France, proposing to ascend in a balloon from the city of Philadelphia, at 10 o clock, a.m. this day, to pass in such place as circumstances may render most convenient, these are therefore to recommend to all citizens of the United States, and others, that in his passage, descent, return or journeying elsewhere, they oppose no hindrance or molestation to the said Mr. Blanchard; and, that on the contrary, they receive and aid him with that humanity and good will which may render honour to their country, and justice to an individual so distinguished by his efforts to establish and advance an art, in order to make it useful to mankind in general."

STORIES, MYTHS, TRADITIONS

It is said that when Pilatre de Rozier landed the first balloon in the fields of Paris, he was greeted by an incredulous and restless mob. To appease them he offered champagne and cheese, and thus the tradition of offering champagne and cheese to those who greet you upon landing in a balloon was started and continues to date.

Blanchard's experience when landing in New Jersey was similar to de Rozier's. When a mob of farmers gathered around this strange and large "spaceship," wine and cheese offerings to the rather "surprised" farmers saved the day and earned the French aeronaut save passage back to Philadelphia.

During the American Civil War, the Union and Confederate Armies used balloons for aerial recognizance of military positions and targets. It was per-

haps the first usage of stealth technology in America. The stories and myths in ballooning are long, complex, and are filled with tradition. They are Americana at its best.

We have touched on the most significant events of this electrifying facet of aviation history. Ballooning history bibliography is more extensive than one may expect and is guarantee to satisfy all palates. A visit to your local library or a simple search on the web for the keyword "ballooning history" will generate surprising results and will keep you occupied for days, furthering your balloon knowledge considerably.

Ballooning in America

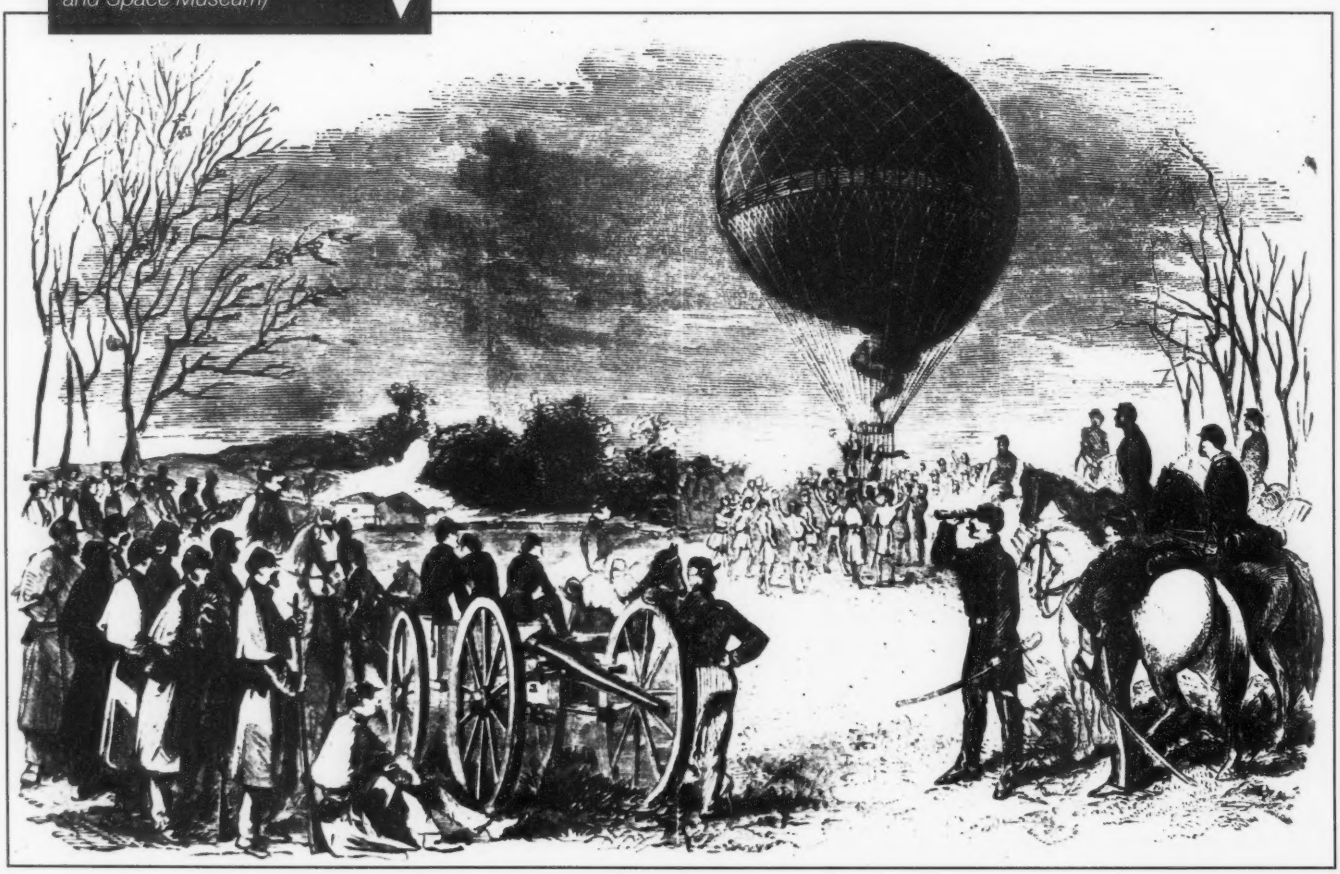
Although Kitty Hawk has been immortalized as the site of the first powered flight, the first manned aircraft flight in America actually happened on the outskirts of Baltimore, MD. The pioneer airman, a lad of 13, did not disappear into the clouds, as many feared, but simply vanished into obscurity and has never been heard from since.

The year was 1784. The Revolutionary War had ended the previous autumn, and America was trying to come to terms with its new freedom. Things were not easy. Politicians were arguing among themselves on how to pull the country out of economic chaos. The Treasury was empty, and many had lost everything during the eight long years of fighting. It was no wonder that the American imagination was ready for the newest diversion from France—ballooning.

Humanity's fascination with flight dates back to early Greek mythology and the legend of Daedalus and Icarus. Over the years experiments with all kinds of fantastic contraptions were made, but the idea of human flight was never taken seriously until the Montgolfier brothers' 1783 demonstration in Paris. All it took to soar into the clouds was a little hot air and a large, globular container.

Among the early balloon flight spectators in France were two Philadelphians, the celebrated Benjamin Franklin and the unknown Dr. John Foulkes. Franklin immediately wrote to his scientific colleagues back

Professor Lowe making a balloon ascension on a reconnoitering expedition to Vienna, Va. *(Photo courtesy of the National Air and Space Museum)* ▼



— In the Beginning

by Louise Oertly

home, exciting their interest. Dr. Foulkes, having just finished his medical education in Europe, found on his arrival home that Americans were thirsting for more information on ballooning. Who better to give this information than an eyewitness?

By May of 1784, Foulkes was ready to give a lecture series and a demonstration with paper balloons on how the principle worked. His balloons varied in size from six to eight feet in diameter and were fueled by burning straw. One actually reached the height of 300 feet.

The success of these demonstrations spurred other Philadelphians' imagination to greater heights—why not a manned balloon flight in America right here in her largest city. The local newspaper started a subscription to finance the venture and soon the list of 85 sponsors contained the names of the city's oldest families and most famous citizens. However, the project had barely gotten under way when word was received that an innkeeper/lawyer from Bladensburg, MD, was planning to fly his "American Aerostatick Balloon" in Philadelphia on July 4. This small town upstart, who dared to challenge Philadelphia's scientific superiority, was an itinerant entrepreneur named Peter Carnes.

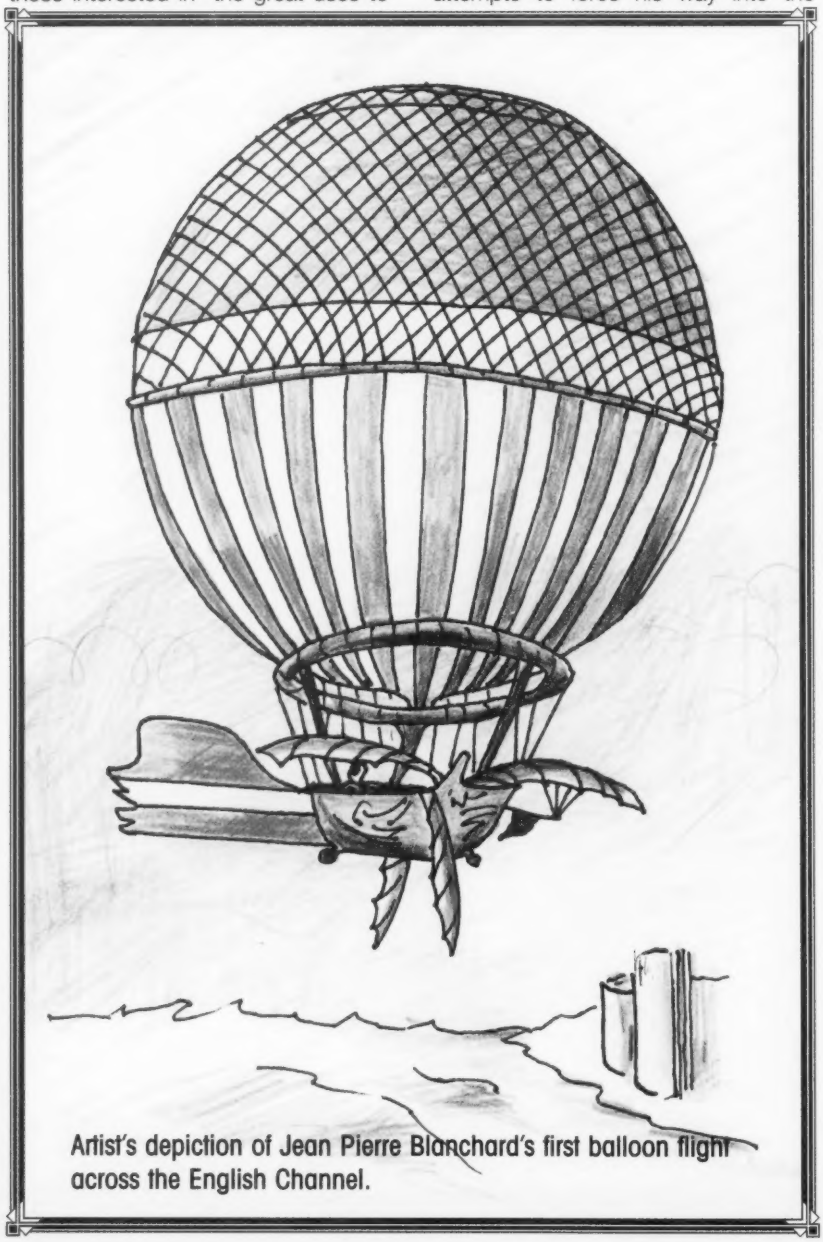
Born in 1749, Carnes spent his early years moving from place to place, searching for economic security and social status. He was not scientifically inclined, but he was interested in anything that would make money. When he heard of the Montgolfier balloon ascent, he promptly read up avidly on the subject and began experimenting on his own. Soon he was the able to announce plans for a balloon flight at Howard Park in Baltimore on June 24, 1784.

To catch the public's interest

Artist's depiction of Jean Pierre Blanchard and wife, Marie-Madeleine-Sophie Armant.

Carnes advertised broadly, describing his balloon as being made of various colored silks, with a diameter of 35 feet and standing 30 feet tall. Suspended beneath the gas bag was a "splendid chariot…fitted for the reception of two persons" with a cylindrical iron stove in easy reach so that the fire could be restoked as they ascended above the clouds.

Each day prior to the flight, Carnes announced he would give a lecture for those interested in "the great uses to which the important discovery may be applied, for the convenience and delight of human life." For the privilege of hearing his lectures and attending the ascent, it would cost you $2 for first place seating and 10 shillings each for second place seats within the high walls of a guarded enclosure. Carnes evidently meant to make money on the deal because he warned that an armed guard "…will be justifiable in taking the life of any person who attempts to force his way into the field." Any surviving freeloaders would be sued—remember he was a lawyer.



Artist's depiction of Jean Pierre Blanchard's first balloon flight across the English Channel.

Finally, the great day arrived in Baltimore. Evidently Carnes had discovered earlier that his 234 lbs. were too much for his balloon to lift, so all the flights that day were unmanned and tethered. The crowd, which had been led to believe someone would be on board, expressed noisy disappointment, but on the whole were thrilled with the show.

As Carnes was preparing for the last ascent of the day, a 13-year old boy named Edward Warren, stood up, and offered his services as a passenger. Carnes welcomed him into the chariot, heated up the stove, and uncranked his windlass.

According to newspaper reports, Warren "behaved with the steady fortitude of an old voyager" as he "soared aloft," politely acknowledging by a "significant wave of his hat" the cheers of the crowd below. The lad no doubt felt rewarded enough just leaving the ground in flight (not realizing he was the first American to fly), but as he reached the maximum height of the tether (perhaps 200 feet) and began to descend, the crowd took up a collection so that he would be rewarded with "…a solid instead of an airy foundation and of a specie which is ever acceptable to the residents of this lower world." (Rhetoric provided a noticeable portion of the hot air.)

As to what happened to our first aeronaut after this, no one seems to know. Extensive research has been done trying to trace him, but he seems to have vanished without a trace.

Meanwhile, Carnes had promised Philadelphia a manned free flight and was determined to give it to them—only this time he would be the admired aeronaut as well as the promoter.

After modifying his heating system and changing the passenger platform to a triangular "scaffold," Carnes estimated that the worn and patched balloon could carry a total weight of 600 lbs. Because repairs took longer to make than he realized, the flight was rescheduled for the 19th of July. To avoid the expense of fencing the launch site, Carnes got permission to

launch from within the walls of the city jail. Again he promised an armed guard who would shoot any unpaying customers.

As the cheering crowd watched, the balloon ascended at 6 p.m. that evening, but quickly disaster struck. At an altitude of 10 to 20 feet a gust of wind blew the balloon against a wall, causing the chain holding the platform to snap. Carnes fell safely back to earth as the balloon "rushed into the air with astonishing velocity." At an altitude of several hundred feet the balloon suddenly burst into flames, putting an end to Carnes aviation career. Indeed, many witnesses believed that he perished in the flaming chariot, and obituaries soon appeared.

The truth was that Carnes returned home to Bladensburg and found that he was being sued by his wife's brother-in-law. It seems that Carnes thought by marrying the Indian Queen Tavern owner's widow, he no longer had to pay rent. As executor of the estate, the brother-in-law said the money was due to him, not the widow. The unflappable Carnes took his wife and two stepchildren and fled to South Carolina, where he sought to recoup his finances as a lawyer and property owner. Before his death in 1794, he would relocate again. This time near Augusta, GA. Apparently he had also married for a third time, to his stepdaughter, who bore him two sons.

In aviation annuals his name, like that of the youth Edward Warren, was soon forgotten. Historians tended to regard Peter Carnes as more of a carnival type of pitchman than a scientist. But in fact his achievement was extraordinary. Working alone and with the scantiest of technical knowledge he had succeeded where others gave up—the learned Philadelphians abandoned plans for a manned balloon of their own and for the next nine years any ballooning exhibitions were of the unmanned variety. It would be 1793 before the Frenchman Jean Pierre Blanchard would bring a man-carrying balloon to these shores.

Blanchard was born in 1750. He inherited his mechanical ability from his father, a combination carpenter, gunsmith, and machinist. By age 16, he had built a four-wheeled forerunner of a bicycle called a velocipede and four years later experimented with a "Vaisseau Volant" or "Flying Ship." It consisted of a set of pedals and two hand levers connected to four flapping wings. It never got off the ground. By the time he was 29 years old, he was a professional. With this type of background, his becoming involved with ballooning, or levitation as it was called then, is not surprising.

Blanchard's 25-year career would take him to nine different countries. His initial flights were in France and England with sponsors paying for the privilege of being a passenger. One of these sponsors was American Dr. John Jeffries, who would later finance the first balloon flight over the English Channel. Blanchard did not like to share the limelight and tried several tricks—including a lead vest—to make sure Jeffries would not be on the flight. Needless to say all his tricks failed and on January 7, 1785, both men successfully completed the crossing. From here Blanchard toured Germany, Holland, Belgium, Switzerland, Poland, and Austria where his European tour was cut short in 1792. Austrian officials arrested him on suspicion of spreading radical doctrines of the French Revolution. Lacking proof (although the consensus is he probably was) the officials released him, and Blanchard immediately set his sight on the United States for his next ballooning tour which would last five years.

Blanchard's dreams of financial success with ballooning did not come true. In fact, by the end of his American tour—which included Philadelphia, Charleston, Boston, and New York—he had only performed one manned flight in Philadelphia (see story on page 18). Most were small balloon demonstrative flights, and many of these had animals onboard who were parachuted back to earth. Despite his many moves, the funds required for his next manned flight were never realized. The final blow came in September 1796 when a tornado swept through New York City killing his 16-year old son and destroying the Balloon House where Blanchard stored his equipment and workshop. By May of 1797 his debts forced him to flee the U.S. with his wife and three daughters. However, he was back in business by following year and made his next manned flight in Rouen, France, on August 12.

Sometime between his flight from the U.S. and 1798 Blanchard would lose his wife, Victorie, and marry for a second time. Marie-Madeleine Armant was an 18-year old admirer—although what she found to admire in a man 30 years her senior and described by his contemporaries as humorless and mean-spirited, an "unpleasant creature, petulant little fellow not many inches over five feet and physically suited for the vaporish regions" is a mystery.

She would make her first flight in 1805 and become the best-known woman aeronaut in Europe. She would carry on the Blanchard ballooning career after her husband's death in 1809 from a heart attack. Little did he realize the success she would achieve after his death, although she is best known as the first woman to be killed in a ballooning accident. During a pyrotechnic display in 1819 she accidentally ignited hydrogen escaping from her balloon. While desperately fighting the fire, her balloon hit a rooftop, overturning her gondola and plunging her to her death in the streets below. It is ironic that the man who disliked sharing the spotlight would one day have to share the place of honor with his own wife. To balloonist the name Blanchard conjures up the images of both Jean Pierre and Marie-Madeleine.

Ballooning in America would again stagnate until 1819—26 years after Blanchard's flight—when another Frenchman, Louis Charles Guille, would bring manned balloon flight to the U.S. and soon other balloonists would follow. The American imagination had finally been caught and ballooning in American became a reality.

New **Part 145** or *What's New with Repair Stations?*

by Bill O'Brien

I pride myself on my network of aviation spies I have put together over the years. My operatives work both in industry and inside the FAA. They feed me bits and pieces of intelligence and wild rumors on such things as new regulatory issues and industry developments, which I in turn mull over, separating the good stuff from the bad in an effort to see "the big picture." Some of the time my "big picture" view of the aviation has a bad horizontal hold, but there have been times when my insider information has put me on top of any new developments, and, as we all know, knowledge is power. The power trip comes in when I choose with whom, and when, and where to share the information. I set the stage, usually when we are all taking a coffee break, and then with the quiet confidence of one who knows the fight has been fixed I prophesize on future developments. This 'Oracle at Delphi" technique of mine in turn invokes a sense of awe and grudging respect among my peers—which is not a bad thing for a government employee when you have nothing else going for you. But I must admit, despite my vast resources, I was caught flat footed the other day when I heard the new Part 145 was signed and released on August 6th as a final rule.

HISTORY

Repair stations were first created in 1938 by the Civil Aeronautics Act and later re-codified into the Federal Aviation Regulations (FAR) in 1962. So repair stations have been with us for quite some time and pre-date the FAA by some 20 years. The present drive to update Part 145 started in 1989 with four public meetings to determine what revisions to the rule should be made. As a result of the meetings some policy changes and Advisory Circulars (AC) were written, but rule making was put on hold because we found ourselves in a "Harmonizing " mode in the early 1999's with the new Joint Aviation Authorities in Europe. The problems trying to get us and 27+ other countries to agree on a common set of aviation regulations is daunting enough when you consider that in the last 1,000 years every member country declared war on every other member country at least once. This one fact makes for some interesting conversations and long delays at arriving at a solution.

We had to wait until June 21, 1999, when the FAA published its Notice of Proposed Rulemaking (NPRM). FAA, as a result of requests from industry, extended the comment period from October 19, 1999 to December 3, 1999. In all, the FAA received just 530 commentors on a rule that will affect approximately 5,000 repair stations. For the next 18 months the Part 145 rule was bounced around the FAA, DOT, and Office of Management and Budget folks trying to solve the unresolved political and regulatory issues. Because of issues and other problems attached to the rule, I thought it would remain in somebody's in-box at least until late next year, but, to my surprise, the new rule was published on August 6, 2001.

Using the Internet, you can get an electronic copy two ways. At <http://www.faa.gov/avr/arm/proc.htm> and click on docket number: FAA-1999-5836 for the final rule. Or go to the Federal Registers web site at <http://www/access.gpo.gov/su_doc/aces/aces140.html> and type in "repair station" in the "search terms" section, then click on "submit." The final rule is 151 pages long so make sure

you printer has plenty of paper.

OVERVIEW

Any time a new rule hits the pavement, the first thing you should look for is the "Effective Date" of the rule. Effective date is the date the new rules become a mandatory part of your life. The effective date for Part 145 Repair Stations is April 6, 2003, or in 20 months from the time I wrote this article. There is one exception, section 145.163 Training Program. The effective date for compliance is August 6, 2005, or two years from the effective date of the rule.

The new Part 145 holds a few surprises. First, the new rule has three less regulations (33 verses 36) than the old rule. It also removed Appendix A (equipment requirements for a class rating) entirely, pending industry comment. By the way, any comments pro or con on Appendix A must have been submitted to the FAA no later than October 5, 2001. The address is in the NPRM.

New Stuff

1. The rule set up some new definitions we have to learn such as "accountable manager," "article," "directly in charge," and "line maintenance"
2. It requires a new repair station manual be developed that explains how the repair station operates and its procedures to ensure the "article" worked on is properly approved for return to service.
3. Requires a new quality control manual that is similar to the currently required inspection procedures manual.
4. Allows for satellite repair stations as long as the satellite repair station is in the same country as the repair station that has managerial control over the satellite repair station.
5. Allows limited-rating repair stations the option to develop a capability list which identifies articles by make and model that the repair station can approve for return to service. These articles must be listed on the repair station's operation specifications.
6. Sets contract maintenance requirements (outside work), including work performed by a non-certificated person.
7. The rule eliminated the limited rating for manufacturers, which was no surprise to anyone.
8. Rewrote the housing requirement for an airframe rating to require permanent housing that encloses the largest type and model of aircraft listed on its operations specifications
9. New FAA foreign repair stations may be issued a certificate based on certification of the civil air authority of the country where the repair station is located, if there is a bilateral agreement in effect.
10. Training programs must be approved by the FAA and in place in two years.

Old Stuff

1. The class and other ratings have not been changed.
2. Operating Specifications are the same as before.
3. Foreign repair stations still must pay a fee and must renew in 12 months after the first certification of the repair station and 24 months after that.
4. Certification of repairman has not changed.

Closing Comments

When you read the rule in its entirely you will find that it seems pretty straight forward, and you should be able to get through it without too many "what the hey!" comments. I especially like section 145.3, Definition of Terms, where the Accountable Manager (AM) is defined. The rule describes the AM in more legal language, but for my purposes the AM is basically the guy who holds the wet paper bag of responsibility for the whole repair station. But more importantly, the AM requirement is a good example of the JAA influence on this rule.

I do not want you to think that this rule is business as usual. I will not sugar coat the facts. This Part 145 Repair Stations is a very complex rule, and it will impact on the organizational design of your repair station, manuals, personnel, record keeping, training management, and housing. There will be a few all nighters in your future putting together the new repair station manual, quality control manual, and employee training program to meet the effective date of this rule.

One good thing is that you have 20 months to pull this off and you should do it the same way you would eat an elephant, one bite at a time. So start at the first section of the rule and work though it.

The second good thing about this final rule is that the rules requiring new repair station and quality control manuals actually lists what information each manual should contain. This takes away the frustration of trying to second guess what your Principal Maintenance Inspector wants to see in a manual.

However, when I read section 145.163, Training requirements, I found it a little nebulous. The rule is quite clear when it requires initial and recurrent training for each employee who is assigned to perform maintenance and inspection functions. But it does not identify the subject areas a good training program should cover, such as: to what level the subject will be taught, how long, must it be all formal classroom or is OJT allowed, what are the minimum qualifications of the instructor, will there be written, practical or oral tests? Obviously, at least dealing with section 145.163, the folks in AFS-300 Aircraft Maintenance Division have a lot of homework to do and I suspect they will be burning the midnight oil to get all the associate policy and advisory material out to industry way before the established rule deadlines or there will be hell to pay—or so my spies tell me.

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Bill O'Brien is an Airworthiness Aviation Safety Inspector in FAA's Flight Standards Service. This article also appeared in the Aircraft Maintenance Technology *Magazine.*

by Mike Wayda

Considering LASIK Eye Su

Pilots know that their vision is the most important sense they possess, and their safety depends on how well they see. The prospect of having refractive surgery done to improve their eyesight—-without having to rely on glasses or contact lenses—is an attractive, appealing notion to many.

The advertisements that some practitioners use to attract potential patients make the procedures appear to be swift, painless, convenient, and effective. However, because of the notion that refractive surgery is a simple, foolproof procedure, aviators might not appreciate what is at risk. When considering the advantages of refractive surgery to correct vision deficiencies, pilots should also consider the disadvantages before making a decision. They should consult an eye-care specialist to determine how a particular procedure would affect their vision, as well as their work and leisure activities.

One of the most popular and effective methods of vision correction designed to reduce dependency upon glasses or contact lenses is LASIK (laser-assisted in situ keratomileusis) surgery.

LASIK, as well as radial keratotomy and photorefractive keratectomy procedures, have potential adverse effects that could be incompatible with flying duties. These adverse effects include corneal scarring or opacities, worsening or variability of vision, night glare, and haziness of vision.

LASIK practitioners mention that between 95 and 99 percent of their patients are doing well and are pleased with the outcome of their refractive surgery. However, if that leaves a one to five percent group of patients whose outcome is unsatisfactory, then thousands of people, some of whom are pilots, are experiencing permanent vision impairment. For some, this could mean the end of flying as a career.

Some of the many important factors to consider prior to refractive surgery are contained in the following list that was condensed from a Food and Drug Administration article. The FDA article fully discusses LASIK procedures and includes the major items to consider before deciding whether LASIK surgery is appropriate or not. For current information about LASIK, visit the FDA's Web site: <http://www.fda.gov/cdrh/lasik>.

For more information, refer to a detailed article discussing LASIK and PRK procedures that was published in the winter 1998 The Federal Air Surgeon's Medical Bulletin. It can be found at <www.cami.jccbi.gov/AAM-400A/fasmb.html>. Also, for patient comments on LASIK, visit: <www.surgicaleyes.com/explinks.htm #table>.

A Checklist for LASIK Surgery Candidates

Career impact — Does your job prohibit refractive surgery?

Eye conditions — Do you have or have you ever had any problems with your eyes other than needing glasses or contacts?

Medications — Do you take steroids or other drugs that might prevent healing?

Stable refraction — Has your prescription changed in the last year?

High or low refractive error — Do you use glasses/contacts only some of the time? Do you need an unusually strong prescription?

Pupil size — Are your pupils extra large in dim conditions?

Corneal thickness — Do you have thin corneas? (Not everyone has sufficient corneal thickness.)

Some Risks and Procedure Limitations

Overtreatment or undertreatment — Are you willing and able to have more than one surgery to get the desired result?

After treatment, you may still need reading glasses — Do you have presbyopia?

Results may not be lasting — Do you think this is the last correction you will ever need? Do you realize that long-term results are not known?

You may permanently lose vision — Some patients may lose some or all vision, experience blindness.

Development of visual symptoms — Glare, halos, starbursts, etc.; night driving might be difficult.

Contrast sensitivity — Vision could be significantly reduced in dim light conditions.

Bilateral treatment — There are additional risks of having both eyes treated at the same time.

Patient information — Read the patient information booklet about the laser being used for your procedure.

Finding the Right Doctor

Medical doctor — Is your doctor a refractive surgeon?

Professional care — Will you be seen by the surgeon at all visits before and after surgery?

Experienced — How many eyes has your doctor performed LASIK surgery on with the same laser?

Equipment — Does your doctor use an FDA-approved laser for the

rgery? Think Again

procedure you need?

Informative — Is your doctor willing to spend the time to answer all your questions?

Long-term care — Does your doctor encourage follow-up and management of you as a patient?

Be comfortable — Do you feel you know your doctor and are comfortable with an equal exchange of information?

Preoperative, Operative, and Post-operative Expectations

Do not wear contact lenses just prior to evaluation and surgery — Can you go for an extended period of time without wearing contact lenses?

Have a thorough exam — Have you arranged not to drive or work after the exam?

Read and understand the informed consent — Has your doctor given you an informed consent form to take home, carefully read, and completely answer your questions?

No makeup before surgery — Can you go 24-36 hours without makeup prior to surgery?

Arrange for transportation — Can someone drive you home after surgery?

Plan to take a few days to recover — Can you take time off to recuperate for a couple of days if necessary?

Expect not to see clearly for a few days — Can you handle the problems associated with fuzzy vision?

Know the sights, smells, and sounds of surgery — Has your doctor made you feel comfortable with the actual steps of the procedure?

Be prepared to take drops/medications— Are you willing and able to put drops in your eyes at regular intervals?

Be prepared to wear an eye shield — You need to protect the eye for a period of time after surgery to avoid injury.

Expect some pain/discomfort — Do you know how much pain to expect?

Know when to seek help — Do you understand what problems could occur and when to seek medical intervention?

Know when to expect your vision to stop changing — Final results could take up to months.

Make sure your refraction is stable before any further surgery — If you don't get the desired result, do you know not to have an enhancement until the prescription stops changing?

Mike Wayda is the Editor of the Federal Air Surgeon's Medical Bulletin and this article appeared in the Spring 2001 issue.

FAA Aeromedical Certification Guidelines

The FAA expects that airmen will not resume piloting aircraft until their treating health care professional determines that their post-operative condition has stabilized, there are no significant adverse effects or complications, and the appropriate vision standards are met. When this determination is made, the airman should have the treating health care professional document this in the health care record, a copy of which should be forwarded as soon as possible to the Aeromedical Certification Division. If the health care professional's determination is favorable, the airman may resume flight duties, unless informed otherwise by the FAA.

If the procedure was done between regularly scheduled FAA physical exams, the airman must provide a report to the FAA from the treating health care professional to document the date of surgery, any adverse effects or complications, and when the airman returned to flying duties. If the report is favorable and the airman meets the appropriate vision standards, the airman may resume flight duties, unless informed otherwise by the FAA.

If the procedure was done two years ago, or longer, the FAA may accept the aviation medical examiner's eye evaluation.

A complete ophthalmologic evaluation (with a written report) is required to demonstrate stable visual acuity and lack of deleterious sequelae. The evaluation must include tests of visual acuity, field of vision, night glare, and haziness of vision. There should be no other pathology of the affected eye(s).

Unruly Passenger Behavior Leaflet

In an effort to educate the flying public about the consequences of interfering with flight crewmembers performing their duties aboard an aircraft, the Federal Aviation Administration (FAA) has published a leaflet entitled "Safety is Everyone's Responsibility."

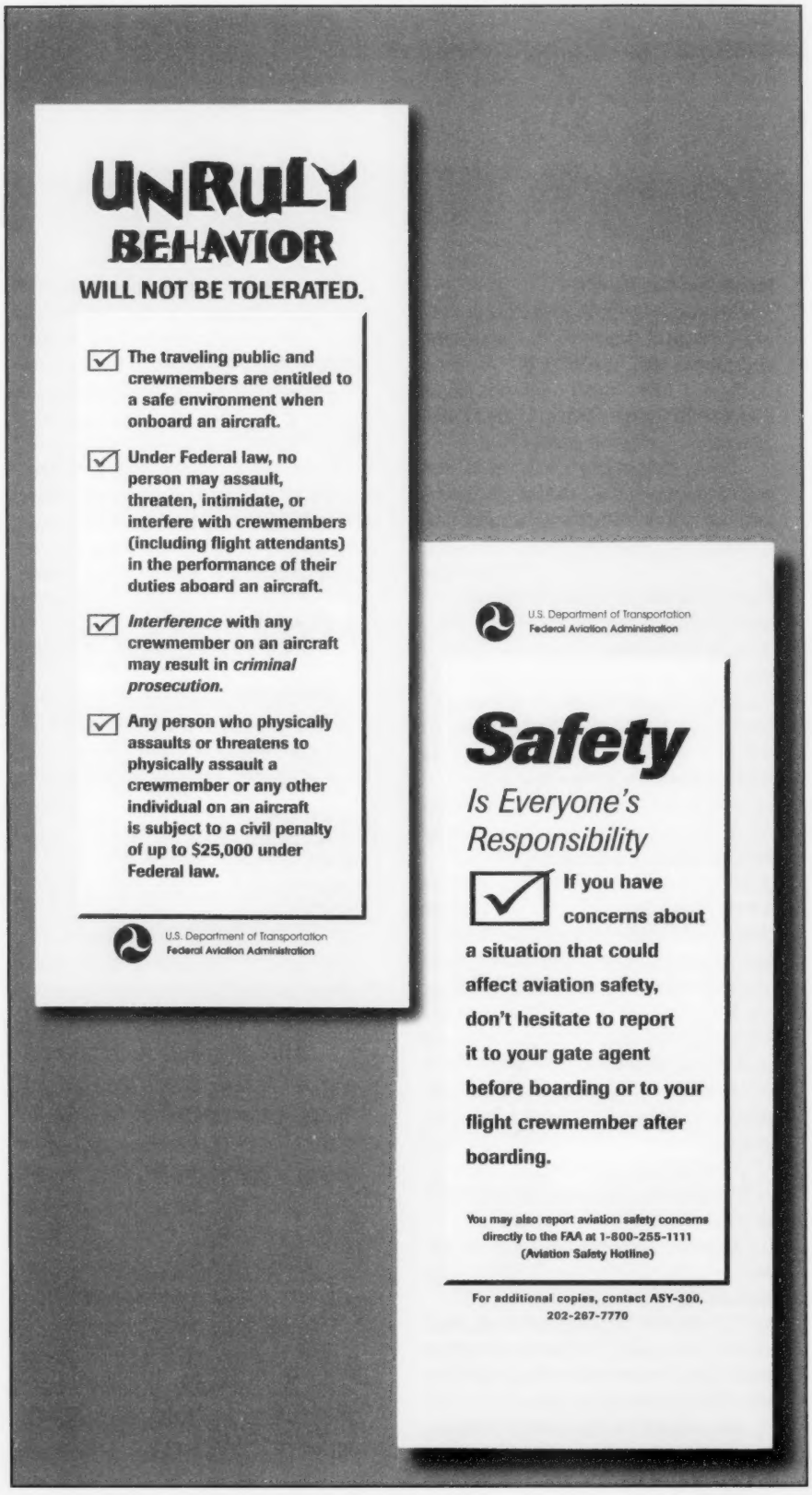
"Flight crewmembers are critical to the safety and security of the skies and the flying public," said FAA Administrator Jane F. Garvey. "Unruly passenger behavior cannot be tolerated."

The leaflet, which can be downloaded from the Internet on <www.faa.gov/apa/newsroom.htm>, outlines the penalties for unruly passenger behavior. The act of threatening, intimidating or physically assaulting flight crewmembers, or other unruly passenger behavior is subject to civil and criminal penalties.

United Airlines will place this leaflet in the airline ticket jacket it issues to passengers at its five hub locations at Denver, Washington Dulles, Los Angeles, Chicago O'Hare and San Francisco airports.

Passengers are encouraged to report any aviation safety concerns to the gate agent or flight crew. In addition, any incidents or concerns also may be reported to the aviation safety hotline on 1-800-255-1111.

A camera-ready copy of the leaflet is available from FAA's Office of System Safety by calling (202) 267-7770. The camera-ready copy may be used freely by anyone with or without the FAA/DOT logos, but if the copy is changed in any way, the logos must be deleted.


UNRULY
BEHAVIOR
WILL NOT BE TOLERATED.
The traveling public and crewmembers are entitled to a safe environment when onboard an aircraft.
Under Federal law, no person may assault, threaten, intimidate, or interfere with crewmembers (including flight attendants) in the performance of their duties aboard an aircraft.
Interference with any crewmember on an aircraft may result in criminal prosecution.
Any person who physically assaults or threatens to physically assault a crewmember or any other individual on an aircraft is subject to a civil penalty of up to $25,000 under Federal law.
U.S. Department of Transportation
Federal Aviation Administration
U.S. Department of Transportation
Federal Aviation Administration
Safety
Is Everyone's Responsibility
If you have concerns about a situation that could affect aviation safety, don't hesitate to report it to your gate agent before boarding or to your flight crewmember after boarding.
You may also report aviation safety concerns directly to the FAA at 1-800-255-1111 (Aviation Safety Hotline)
For additional copies, contact ASY-300, 202-267-7770

• Web Site

John Dow, Sr., of the FAA wrote a two-part article in the *FAA Aviation News* on how icing can cause pilots to lose roll control. The articles also go into detail on other aspects of icing and should be must reading for any pilots who ever fly into potential icing. The articles were printed in October and November/December 1996 issues.

I can't find these issues on your web pages. Please help.

Ari Aaltio
Via the Internet

Because of limited computer server space, representative FAA Aviation News *articles from a given issue are only published on the FAA's website for a short period of time. Normally, only material from the most recent three issues are retained on the website at any given time. Not every article from a given issue is published on the website.*

If you want a copy of a particular issue, FAA Aviation News *has a limited supply of back issues available that you can request. Since the supply is limited, every request may not be filled. To request a copy of the magazine, you need to either e-mail or send your name, the issue date, and your mailing address to the magazine at the e-mail or mailing address listed on the next page.*

• Future Article Idea?

I am a subscriber, and I enjoy the publication. As you are well aware, for a type rating in a turbojet certified under Part 25, the applicant must demonstrate proficiency when applying the take-off climb profile in the event of an engine failure after Vr, take-off continued. As a pilot of a Hawker 800XP, I would like to see a series of articles regarding the FAR Part 25 take-off flight path and how it relates to obstacle clearance.

I also hope that in the future, there will be information on obstacle clearance and avoidance techniques and pilot requirements for obstacle clearance planning and avoidance at high altitude airports such as Aspen, Jackson Hole, Grand Junction, etc. I remember the quality of the series of articles on icing. I am hoping for the same regarding transport category aircraft and the implementation of the climb profile.

Doss Comer
Via the Internet

Thank you for your comments. We will put your suggestions in our "to do" file for our annual spring series on recurrency and pilot proficiency.

• Night Vision Goggles: A Second Opinion

I am writing in response to an article, "Night Vision Goggles in Civilian Aviation," which appeared in the May/June 2001 issue of *FAA Aviation News.*

I thought the article was extremely negative towards the use of Night Vision Goggles (NVG). The article displayed a very short paragraph with the "advantages" of NVG with nearly a half page devoted towards the "disadvantages" of goggles. In addition, the picture displayed on page 22 is not representative of the view realized using the NVGs.

To me, the civilian aviation community displays the same attitude toward NVGs of the military of 20 years ago. Initially, the hierarchy within the military fought NVGs and their use. Today, the military (Army Helicopter) requires the pilots to fly semi-annually without goggles for proficiency. Other than that, you will not find a pilot flying at night without the use of NVGs.

Having recently separated from the military, I am now flying civilian (private) helicopters in the Emergency Medical Services (EMS) industry in Northern Arizona. I fly approximately 40% of my time at night, impaired by the 20-200-night vision. While in the military, I had the opportunity to fly EMS with the Army where NVGs were utilized extensively. You can see obstacles, lights, clouds, man-made features, and other aircraft much more readily than with the naked eye. When responding to a scene call, we would use the NVG until approaching the scene. If the scene were "lit-up" with ground units flashing lights then we would land without the NVG. However, the NVG allowed us to conduct a thorough reconnaissance before initiating a landing. What pilot would elect to have seriously degraded vision due to lack of light when the ability to see (20-200 vs 20-40) is available?

I believe that it is merely a matter of time before NVGs become a reality in the civilian world, particularly the EMS industry. Further, I believe the day will soon be here when operators utilizing NVGs will actually get an insurance break over their non-NVG operators.

As for the authors' conclusion to the article, I am in full agreement that training, certification, and a total training package requires development. Therefore, the FAA really needs to get a handle on this since it will start with their agency.

In conclusion, the article upsets me since it only aids in NVG programs receiving negative views by the readers out there whom have never had the experience of using NVGs. Like any tool, there are certain parameters the operator must be aware of when using that tool. The NVGs are here to stay. Civilian aviation needs to accept NVGs and realize the added benefits by their use.

Andrew E. Sickler
EMS Pilot
Flagstaff, AZ

The FAA has certified night vision goggle operations for Part 135 civil helicopter emergency medical service operators through operation specifications and a STC. At this time there are three helicopter EMS operators

(one with several locations) with NVG approval. The STC covers interior lighting modifications, certification of goggles, and an approved training program. Currently the approved goggles must have the operating performance capabilities of the ANVIS 9 system.

The FAA has been coordinating and has taken the lead in NVG rulemaking development and coordination with the European Joint Aviation Authorities (JAA). The FAA has worked with RTCA, the military, the industry and other Federal, State, and European operators in developing an Operational Concept of Operations Requirements for NVG Implementation in the National Airspace System, the Minimum Operational Performance Standards (MOPS) for NVG, and the Training Guidelines, and other considerations for NVG operators. For further information check the RTCA website at <www.rtca.org>.

Thank you for your letter. We will let our readers make up their own minds on the issue.

FAA AVIATION NEWS welcomes comments. We may edit letters for style and/or length. If we have more than one letter on the same topic, we will select one representative letter to publish. Because of our publishing schedules, responses may not appear for several issues. We do not print anonymous letters, but we do withhold names or send personal replies upon request. Readers are reminded that questions dealing with immediate FAA operational issues should be referred to their local Flight Standards District Office or Air Traffic facility. Send letters to H. Dean Chamberlain, FORUM Editor, FAA AVIATION NEWS, AFS-805, 800 Independence Ave., SW, Washington, DC 20591, or FAX them to (202) 267-9463; e-mail address:

Dean.Chamberlain@faa.gov

• Airspace Alive

Can you direct me to any articles that will help me understand airspace definitions and requirements and air traffic procedures within them? My textbooks do not seem to bring these airspaces alive for me. Actually, I wish someone would write some articles about how actual pilots navigate in them. True to life, minute by minute rewrites of all the communications and the pilots flying reactions to the clearances including the headings, altitude, etc.. That's what I would call teaching. This would be more useful than the bland, dead textbook rehash of the regulations.

Roger
Via the Internet

FAA is not in a position to recommend any particular company or textbook. However, have you reviewed any of the new FAA manuals such as the 2001 Instrument Flying Handbook, FAA-H-8083-15? The handbook is in color and includes information on GPS as well as airspace. The handbook and the other new FAA training handbooks are available for purchase through your nearest Government Printing Office bookstore (on the Internet at <www.gpo.gov>). Many of your local flight training schools sell the handbooks as well. You can also find textbooks, how to books, videos, and audiotapes on ATC procedures and airspace operations advertised in most of the popular flying magazines. Since you have access to the Internet, you can also do a search on it and find many sites on ATC procedures and operations.

The FAA's Aeronautical Information Manual *(AIM) is the best source on current ATC procedures and operations. It is the FAA's official guide to basic flight information and ATC procedures.*

• By Any Other Name

Rumor has it that there will no longer be an Office of Aviation Medicine in the FAA. What gives?

Via the Internet

Technically, you are right. There will no longer be an Office of Aviation Medicine. It will now be called the Office of Aerospace Medicine. The same thing is happening to the Civil Aeromedical Institute in Oklahoma City. The name has been changed to the Civil Aerospace Medical Institute. These changes were made to better reflect the scope of the FAA's responsibilities, as the Office of Commercial Space Transportation also comes under the FAA's purview.

By the way, the CAMI acronym, used for the former Civil Aeromedical Institute will remain the same.

NOTICE TO AIRMEN

Safety Program Pamphlet Error

The FAA's Aviation Safety Program's safety pamphlet, *Flying Light Twins Safety*, FAA-P-8740-66, AFS-803 (2001) contains an error that has been corrected in later copies. The error concerns minimum control speed procedures. The error, contained in the first line on page six, says, "bank into the inoperative engine, and...." The correct wording is "**operative** engine."

Anyone having a copy of the above pamphlet should destroy it or delete the incorrect word "inoperative" and insert the correct word "**operative**."

Revised copies of the pamphlet will include a revision notice on the cover as well as the correct wording.

FAA REQUIRES AIRLINES TO CARRY HEART DEVICE

The FAA has issued a final rule requiring U.S. airlines to carry automated external defibrillators (AED) and enhanced emergency medical kits (EMK) on all domestic and international flights within three years. The rule, which responds to the Aviation Medical Assistance Act of 1998, affects airplanes that weigh more than 7,500 pounds each and have at least one flight attendant.

An estimated 350,000 Americans are struck by cardiac arrest each year. Cardiac arrest stops effective pumping of blood to the heart. An abnormal heart rhythm called "ventricular fibrillation" is the most common form of treatable cardiac arrest. Chances of survival can be as high as 90 percent if defibrillation—electrical shocks that stimulate the heart to resume normal beating—is provided during the first minutes following collapse.

"Nine airlines either currently carry AED and enhanced kits or have made a commitment to do so," said FAA Administrator Jane F. Garvey. "Our rule will ensure that all airline passengers have access to this potentially life-saving device."

The FAA rule also expands the EMK by adding medications that may help passengers who suffer an in-flight medical event. The following items will be added to each EMK:

- oral antihistamine
- non-narcotic analgesic
- aspirin
- atropine
- bronchodilator inhaler
- lidocaine and saline
- IV administration kit with connectors
- AMBU bag (to assist respiration following defibrillation)
- CPR masks

An EMK is already equipped with:

- sphygmomanometer (measures blood pressure)
- stethoscope
- three sizes of oral airways (breathing tubes)
- syringes
- needles
- 50 percent dextrose injection (for hypoglycemia or insulin shock)
- epinephrine (for asthma or acute allergic reactions)
- diphenhydramine (for allergic reactions)
- nitroglycerin tablets (for cardiac-related pain)
- basic instructions on the use of the drugs
- latex gloves

All crewmembers will receive initial training on the EMK and on the location, function, and intended operation of an AED. Flight attendants will receive initial and recurrent training in CPR and on the use of AED.

Medical personnel are frequently onboard and can assist fellow passengers during an in-flight medical event. In addition, a "Good Samaritan" provision in the Aviation Medical Assistance Act of 1998 limits the liability of air carriers and non-employee passengers, unless the assistance is grossly negligent or willful misconduct is evident.

The total estimated cost to the airline industry over 10 years for equipment, medications, and initial and recurrent crew training is $16 million.

STOP DREAMING, START FLYING

The nationwide BE A PILOT! Program is designed to help people take the first step toward becoming a pilot. A visit to the BE A PILOT website will answer common questions about learning to fly (including "will I get airsick?") and provide a certificate for a special $49 introductory flight at participating flight schools. It even provides a database for the over 1,600 participating schools in the U.S. and Canada.

The success of the program has been encouraging for the future of aviation. In the first half of 2001 nearly 20,000 people have requested the $49 BE A PILOT Introductory Flight Certificate, up 9.8% from the first half of 2000.

For more information on the BE A PILOT Program, you can visit its website at <http://www.beapilot.com> or contact them at 1400 K Street, NW, Suite 801, Washington, DC 20005, phone: (202) 842-4099.

FRACTIONAL AIRCRAFT OWNERSHIP NPRM

The Federal Aviation Administration (FAA) has issued a Notice of Proposed Rulemaking (NPRM) in the July 16, 2001, Federal Register that provides federal standards for safety and oversight of Fractionally Owned Aircraft Programs. The FAA's proposed rulemaking also provides for the first time an official definition of a fractional ownership operation and specific owner and management company responsibilities.

Fractional ownership programs began in the mid-1980s. The programs allow individuals to purchase a "share" of an aircraft while a management company provides maintenance and other aviation services. Since its inception, fractional ownership programs have expanded to the point that some companies provide management services for hundreds of aircraft and owners.

To meet this growing area of aviation, FAA Administrator Jane F. Garvey called for formation of a Fractional Ownership Aviation Rulemaking Committee in October 1999 to develop regulations and policies relating to fractional ownership programs. The 27-member panel was made up of aircraft operators, manufacturers, associations, the general aviation commu-

nity, as well as FAA officials. The committee reached a consensus on various issues and the proposed rulemaking reflects the panel's recommendations.

According to the newly proposed definition, a "Fractional Ownership Program," is possible when an individual or corporation purchases at least 1/16th share of an airplane. The aircraft is then placed in a "pool" to share with other owners of aircraft. The pooled aircraft are managed by a company that provides aviation expertise and management services for those owners.

While Fractional Ownership Programs have consistently achieved one of the safest records in aviation, the proposed rulemaking is aimed at maintaining the safety of these programs. In addition, the NPRM also provides charter operators with alternate means of compliance with certain regulations provided they meet additional safety requirements. The rulemaking is based on many of the best practices existing in corporate and commercial aviation, as well as air carrier regulatory standards.

A copy of the NPRM can be viewed by going to <http://www.faa.gov/avr/arm/proc.htm> and under Notices of Proposed Rulemaking click on "FAA-2001-10047." Or go to <http://www.access.gpo.gov/su_doc/aces/aces140.html> and type in "Fractional Aircraft Ownership" in the "search terms" section, then click on "submit." Comments must be received by October 16, 2001. Upon review of the public comments, the final rulemaking is scheduled for the summer of 2002.

NATIONAL SCREENER OF THE YEAR

FAA Administrator Jane F. Garvey and representatives from the aviation industry presented this year's National Screener of the Year Award to Sylvia A. Garcia, a preboard screener at Kansas City International Airport, Kansas City, Missouri. Garcia, an employee with ITS Inc., received the award in a ceremony on August 10 at FAA Headquarters.

"We often think of security as a nuisance when we run through the airports to make our flights," Garvey said. "Yet every year, security screeners keep hundreds of weapons and other dangerous objects from getting on our planes. It can be a thankless job, so I am very pleased today to tell Sylvia Garcia and others like her how much we appreciate her dedication and vigilance."

Associate Administrator for Civil Aviation Security Mike Canavan also recognized Garcia and thanked all of the nation's aviation security screeners. "Screeners at the airports form the front line of defense for the flying public," he said. "Sylvia Garcia's dedication to public safety is an example for all of us who work in security."

Garcia has worked at Kansas City International Airport for four years as a preboard screener for several airlines, including Continental, Northwest, US-Airways, American, America West and Frontier. She has received numerous awards from her company and the airport, and was selected as a member of the ITS Captains Log, an award reserved for only the top 5 percent of the 11,000 ITS screeners nationwide. Garcia has passed every airline and FAA test throughout the year and has a 100 percent detection rate. In addition, she has stopped 11 unauthorized items, including mace, toy guns and knives. She is committed to customer service as well as to security, and frequently uses her bilingual skills to assist international travelers through the security process.

Every year, the average screener examines more than 300,000 bags and 150,000 passengers. Screeners detect nearly 2,000 dangerous items every year. The FAA, Air Transport Association, Regional Airline Association, National Air Carrier Association, Air Line Pilots Association and American Association of Airport Executives sponsor this annual award to honor the best security screener from a pool of regional winners.

CALENDAR OF EVENTS

November 8-10:
AOPA EXPO 2001, Fort Lauderdale, FL

AOPA's annual convention will be held at the Fort Lauderdale/Broward County Convention Center. For more information, contact Warren Morningstar at (301) 695-2162 or <warren.morningstar@aopa.org>.

November 14-15:
16th Annual Airport Conference, Rosemont, IL

FAA's Great Lakes Airports Division will hold it's annual conference at the Holiday Inn O'Hare International. Topics will include airport management, capacity, construction, design, engineering, environmental, and safety issues. For information, contact Michelle at (847) 294-8314.

November 27-30:
The Third International Aviation Security Technology Symposium, Atlantic City, NJ

Will be sponsored by the FAA Aviation Security R&D Division and National Safe Skies Alliance at the Tropicana Resort & Casino in Atlantic City. Topics include: Trace Detection; Bulk Detection; Human Factors; Technical Integration; Operational Testing and Evaluation; Deployment; Aircraft Hardening; Emerging Technologies; and other related topics.

For more information, see <http://www.safeskiesinternational.org/symposium_2001.htm>.

Editor's Runway

from the pen of Phyllis-Anne Duncan

Alberto Santos-Dumont said it best, "The illusion is complete: it seems not to be the balloon that moves, but the earth that sinks down and away..."

Within the Element

by Phyllis Anne Duncan

To fly a balloon means to become part of the sky.
Some argue that gliders are the closest human contrivance to birds,
But a balloon puts you within the element in which you fly.
Held by the most fragile of threads,
You float at the whim of the wind.
The envelope and the burner give you the illusion that you are in control,
But you're not. And that, perhaps, is how it should be,
That you rise in a state of nature, pure.

The earth does seem to fall away, and the sky embraces.
No longer earth-bound, you are Icarus, safely distant from the sun,
Free to use all your senses:
A horizon on all sides, revealed and revealing;
The reverberation of air, as a bird hears it;
Hackles raised by unadulterated wind;
Rarefied medium, cool in the nostrils, sweet on the tongue;
An out of body experience.

All too soon, human limitations bring you down.
In the mind the flight continues, soars higher, is ceaseless.
The mind is the key: synapses connecting, decisions uncountable.
The basket, the envelope, the burner, the element, the pilot,
And above all, the limitless mind that merges them all into
A yearning, the simplest, the most primeval, the memory
From throughout time, generation to generation, the most sought–
Flight.

The Aviation News Staff--and a lot of balloon pilots in the FAA--congratulate Steve Fossett for breaking the solo distance record in a balloon, and best wishes for his next attempt to fly solo around the world.

'Til next time...

United States Government Printing Office

Superintendent of Documents

Washington, D.C. 20402

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